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LESSONS OF THE BUILDING CONGRESS

THE first Building Congress arranged by the Building Industries National Council was held in London in July, 1943. This was the first of its kind and was an undoubted success, especially as it indicated very clearly that, even in the midst of a great war, it was possible for the industry to look and plan ahead.

The second Congress was held after the end of the war, in October, 1945. In spite of the criticisms it was generally thought to have served a useful purpose, and the matters dealt with included supply of labour and materials, town and country planning, the housing programme and the organisation of the industry and its future relationships with Government Departments.

The third Congress, just completed, was held after 18 months of peace-time activity, when the transition from war to peace conditions should be well on its way. The subjects dealt with covered the burning problems of materials supply, firstly in regard to its effect on productivity, and, secondly, on the question of long-term availability. A discussion took place on traditional and new forms of construction, and the last session was devoted to relations of the Government with the building industries.

The Conference began with a comprehensive statement by the Minister of Works on the matter of materials. We were urged to look at the position in the first two years of peace, not as compared with the first two years of the last peace or the two years before the war but in comparison with the first two years of the war, when the economic life of the country urgently had to change from one set of conditions to another in the interests of immediate output. From this aspect it was claimed that little short of miracles had been done and the situation was steadily improving. The general tenor of the discussion which followed, in so far as it was related to the agenda item, seemed to be that, due to present circumstances, the producers and distributors were short of stocks, which upset the flexibility of organisation of the industry, and that far too much work was being let than it was possible for the industry to tackle. These views were confirmed again in later debates.

The second day was opened with a statement by the Minister of Health, which largely followed the lines of his speeches in other places and in Parliament. Those in the industry always follow Mr. Bevan's speeches closely, and at the Congess they learned little fresh except the cheering news that he proposed, in the near future, to tell the leaders of the industry what the Government's programme for 1947 was likely to be. In the regrettable absence of the Parliamentary Secretary to the Ministry of Works, Sir T. P. Bennett gave a masterly review of the make-up of the industry, and many of his comments should be carefully noted, not only by Ministers but by the industry as a whole. Amongst other points which Sir Thomas made were that the tightness of control and direction by Government Departments did not inspire confidence within the industry; that the registration of vast numbers of new firms with no plant, organisation, labour or experience served no useful purpose; that there should be closer co-operation between the professional, supply and constructional sides of the industry, who are also closely linked together; that steps should be taken to relieve the industry of the burden of estimating in wholesale competition; that questions of town planning should be crystallised as quickly as possible; that the Government should indicate the time when they were likely to release building work other than housing, however far ahead this might be; and that builders themselves must develop a higher standard of technique. In the discussion which followed there seemed to be only one speaker, the Director of the National Federation, who stuck to his text, that of relationship with Government Departments, and he pleaded for early consultation leading to confidence and co-operation.

At last year's Congress the main criticism was that too much time was taken up by top-table speakers. The complaint was even stronger this year, and the body of the hall had something less than one-third of the time of the Congress allowed to it. Even in that time there was hardly a speaker who addressed himself to the subject on the agenda paper, and the opportunity was taken to express strictly political views, sectional outlooks and opinions on matters which were the internal concern of sections of the industry, such as wages and conditions. A Building Congress will serve little useful purpose unless:—

(1) The items for discussion are of paramount interest and importance to the building industry as a whole;
(2) The bulk of the time is allowed to the general meeting and not to the top table, important and interesting though those speeches may be;
(3) No speaker is allowed for a moment to go outside the subject; and
(4) All questions of party politics, sectional interests and domestic concern are entirely excluded.

It is difficult to suggest how a Congress can be disciplined on those points in the form which the last two meetings have taken. A complete revision of the procedure seems to be called for. Either the Congress should consist mainly of addresses by authoritative speakers on important subjects, with perhaps time allowed for questions only and not statements, or, alternatively, the Congress should be designed on the line of a series of Study Groups held in different parts of the building and dealing with different subjects, with a final reporting session to the Congress as a whole. This would, of course, call for very strong and able chairmanship of each Study Group.

At the end of the Congress just completed a rather half-hearted vote was taken from what was left, perhaps one-tenth of the total attendance, in favour of holding a further Congress at regular intervals. If this policy is to be followed, and if it is generally agreed, as it must be, that a valuable purpose can be served by such gatherings, then B.I.N.C. must consider very carefully its future plans. Possibly a discussion on this matter between B.I.N.C. and some of those prominent in sections of the industry who attended the Congress as ordinary members might be fruitful.

BUILDINGS FOR EDUCATION

THE Committee appointed by the Ministry of Education last May, "to consider the possibility of simplifying and expediting the procedure for the examination of proposals to acquire sites and erect buildings for educational purposes" has now issued its report,* which opens with a forecast of the urgent and unprecedented demand for school buildings of various types required to implement the reforms laid down in the 1944 Act. The capital expenditure necessary for this will obviously be on a very much larger scale than any with which the educational administration has ever before had to deal and is estimated to demand some £70 million per annum for a period of 15 years, which, at present costs, is about double the programme in 1938. During the busiest period before the war, schools and colleges accounted for between 3 and 4 per cent. of all building work, and though the programme envisaged would involve doubling the school building force it is not considered that this would make an unreasonable demand on the country's resources.

The view is taken that as the competing demands of other important and exacting claimants—housing, industry, public utilities and health services—will make it essential to devise without delay, and to employ for some years to come, methods of construction which will make the most economical use possible of skilled building labour and material, it is desirable to make an immediate investigation into the possibilities in this direction as suggested in the recommendations made by the 1943 Committee on Standard Construction for Schools. This is regarded as one factor in expediting the provision of the required accommodation.

The other principal factor is the simplification of procedure as regards the various stages by which the required buildings would be achieved, and in its proposals under this head the work of the Committee is more open to criticism, appearing to lack a realistic attitude towards the position at the present time. No very drastic steps are proposed towards eliminating the delays due to the number of authorities concerned and other matters which cause long-drawn-out negotiations at the earlier stages of the programme. We shall return to this aspect further on, but beyond mentioning at this point that "simplification" seems to be regarded as demanding still larger Ministerial and local staffs, will leave it now to take as our text a paragraph affecting more particularly the architectural profession.

"As for the Local Education Authorities' staffs, it is evident that there is no possibility of any appreciable increase in output without a corresponding increase in technical personnel of all grades. There is in particular at the present time a dearth of architects with a knowledge of post-war school planning and construction. We therefore recommend that the R.I.B.A. should be invited to see if courses could be arranged for architects concerned with school construction and layout. . . . While we are of opinion that every Local Education Authority should have an adequate architectural staff, we strongly recommend an extension, especially during the next few years, of the practice, already followed by a number of the largest authorities, of employing private architects."

Now the first part of this statement conveys an entirely false impression of the position; it seems a pity that the Committee did not consult some representative architect in private practice before making it. The actual fact is that a substantial proportion of practising architects are well qualified to deal with schools and are as well acquainted with the present requirements as any other members of the community in general. Many of them were dealing with the school programme before the war and are fully prepared to continue and to expand their activities as soon as opportunity offers. It is, moreover, a matter of general knowledge that a few architectural firms have on their desks designs for educational buildings to the value of between two and three million pounds which are held up only by the present position in the building trade and the need for priorities therein.

Thus there is no real difficulty in the provision of designs, and as it is unlikely that any actual building can be started in less than a couple of years, the obvious line of procedure is to use this period in taking the necessary preparatory measures. The Committee's own estimate for these being a minimum of 30 months, it seems reasonable to assume that a start should be made immediately. These measures are given in detail in the form of an appendix, but their order does not seem to visualise the degree of simplification that is claimed to be desirable, still involving a great deal of passing backwards and forwards between the Authorities and Government Departments on the traditional lines. It is clear that the initial steps must be agreed between the educational and the town planning bodies, including the question of the site. This brings up the question of acquisition, which should, it is advised, be by negotiation, in preference to compulsory purchase, doubtless due to the fact that the Government has not yet been able to come to a decision on the appropriate terms for the latter.

It is desirable that the architect should be called in at an early stage to advise on the relative merits of possible sites both as to their value from the town planning aspect and that of building costs. As soon as a site is definitely selected he can prepare a sketch plan and approximate estimate and then there is a series of official proceedings that are estimated to take anything from two to eight months, culminating with a provisional approval by the Ministry or with a demand for substantial alterations by either the Ministry, the local education authority, that for town planning or some other interested body; this seems to open the door to serious delays, and it should be found possible to avoid these by conferences of an informal character at an earlier stage. Then the scheme is ready for the preparation of working drawings and quantities, with a time allowance of nine to sixteen months to reach submission of tenders, including approval by four or five interested authorities as well as the final approval by the Ministry of Education.

After this, the time suggested for the actual building is ten months, which might be adequate for primary or secondary schools, but not for the more complex requirements of the higher grade ones contemplated as an important feature in the new educational programme. In all, the minimum total time from start to finish does not look likely to be materially reduced, though compared with other types of undertaking it must appear that the preliminaries take up an undue proportion of this, and the effort at simplification might have been carried further.

* M.O.E. Report of the Committee on School Sites and Buildings Procedure; London, H.M. Stationery Office, 1946. 4d.

NOTES AND NEWS

Where are the Operatives?

MR. ANEURIN BEVAN recently commented upon the fact that although the labour force in London had increased from 343,900 in July, 1945, to 603,900 in September, 1946, only about a quarter of these were engaged on permanent house construction. "Careful planning," he proceeded, "is required to ensure that available labour is properly distributed. The important thing is to ensure that it is not dissipated on non-essential work of repair and decoration. This can be done by the strictest possible control of licensed work and by a ruthless attack on black market building, which is of particular significance in the London area."

There is an explanation of the "missing operatives," which, so far as we are aware, has not yet been investigated. The number of registered building undertakings is 165,331, of which no fewer than 81,250 were licensed between May 31, 1945, and October 31, 1946. Most of the latter are probably small concerns started by enterprising operatives. Many are, no doubt, one-man affairs. Their existence, we believe, supplies the answer to Mr. Bevan's question. It is well known that a great amount of repair and decorative work within the £10 limit (and, no doubt, above it) is being done by small "master" men who have set up in business since the end of the war, some of whom may perhaps employ three or more operatives.

Assume, for the sake of argument, that only 50,000 of the 81,000 odd firms registered since the war are of this kind, and that each employs an average of three men. This gives us a total figure of 200,000. If the labour force employed throughout the country on building maintenance and repairs is 300,000, as it well may be, we have a total of half-a-million men withdrawn from new construction.

These figures are no more than guesses. The total may be less, though it may well be more. There is clearly a case for close inquiry. The immediate objective is to get as many men as possible on to new work. If the housing programme is to be completed within a reasonable limit of time, the country cannot afford to have half the labour strength of the industry, and, perhaps more, working on maintenance and repairs.

Saving Oxford.

LUNCH at the Randolph in Oxford was as fitting an occasion as any to discuss the future of our greatest University City—a city with industry knocking loudly at its walls, but which still bravely strives to preserve its ancient and scholarly charm. Oxford has been called "The Flower of all our cities." This title would have been justified a century ago, when its serene loveliness was a thing of wonder to the whole world, but industries, large and small, have by injudicious planning wrought havoc to the surroundings of the city, so much so that its ancient heart has now become an anachronism almost embarrassing. Can it be saved?

It could well be argued that the harm has been done and that it is too late. Many people consider that the city's only scenic or architectural value lies now in the individual buildings. One has only to look at some of the university towns in Germany—such towns as Marburg, Bonn and even Heidelburg—to realise how preservation of ancient seats of learning can be achieved. But the public's planning conscience was fated to have a late awakening in England, and Oxford, for one, is the poorer for it.

Now the news comes that Mr. Thomas Sharp has been appointed town planning consultant to the city. This is a good appointment, and while not envying Mr. Sharp his task, we feel that he can be relied upon to stop further inward industrial growth, to overhaul the road and traffic systems and to preserve the amenities of the city. Progress of the wrong kind has left its mark upon Oxford and its environs. It has been advised that some underpinning will be necessary if the leaning spires and lovely college halls are to remain safe, this being due to the heavy traffic in the city's narrow streets. It all hardly makes sense, but in Mr. Sharp's timely appointment we find a ray of hope.

Turkish Baths.

AMONG the many architectural crimes committed by Nazi airmen was the razing to the ground of London's two oldest Turkish Bath establishments, "The Hamman" in Jermyn-street and the St. James's Hydro, opposite Earls Court Station. These were real Turkish baths, inasmuch that they were designed in the Turkish or rather Moorish style—a style

PRINCIPAL CONTENTS

ARTICLES.	Page
EDITORIAL: Lessons of the Building Congress	555
Buildings for Education ...	556
WAR DAMAGE IN AUSTRIA. Report reviewed by Martin S. Briggs	559
"PRODUCTION FORUM" ...	568
CORRESPONDENCE	569
BUILDING CONGRESS: Report	570
PRODUCTION OF HOUSING FITMENTS	575
IN PARLIAMENT...	576
HOLIDAYS SCHEME MANAGEMENT: Annual Report ...	577
FUTURE CONSTRUCTION ...	578

ILLUSTRATIONS.	
KING EDWARD VI SCHOOL, SOUTHAMPTON. By E. Berry Webber, A.R.I.B.A.	561
MEMORIAL HALL, MODBURY. By A. F. FRENCH, F.R.I.B.A....	565
WEST INDIA HOUSE, STEPNEY. By B. W. STUTTLE, F.R.I.B.A.	566

DESIGN FOR BUILDING ON OLD WESTMINSTER HOSPITAL SITE. Seen above is the design prepared by Sir John Burnet, Tait and Lorne, for a building which the owners, Messrs. John Laing and Son, Ltd., had proposed to erect on this site, now to be acquired by the Government for a new Colonial Office. This was the second design to be proposed and had received the approval of the Royal Fine Art Commission, the owners having taken every care to see that the design was in harmony with buildings of national character in the vicinity. The perspective is by J. D. M. Harvey.

which, when copied by the English, is apt to become rather comical in its general effect, which is one rather like a cross between a stage set for "Chu Chin Chow" and a photograph out of a heating and ventilation textbook illustrating the uses of "trunking."

However, these baths, in their odd way, were part of the fabric of the London scene. The modern type, usually scorning such bogus decoration, are better designed and infinitely more hygienic, but where once the "ogival" arch reigned supreme, the classical arch or flat opening now holds sway. Turkish, no longer! Roman baths would be perhaps a more fitting name. But perhaps the finest of them all is the one in the deep basement of the Imperial Hotel in Southampton Row. Here all previously known styles have been thrown well together and the designer has wallowed in a veritable orgy of catholicism. Classical, Romanesque and Gothic—all can be seen here in glorious profusion in the main hall. The sculptured figures, incidentally, are of quite a high order.

When "The Hamman" is rebuilt we hope that the Moorish influence in design may not ruthlessly be abandoned; it goes with hansom cabs and gentlemen's chambers in Jermyn-street; both these are gone, but the beauty of architecture is that the spirit of the past (where it does not impede progress) can be so easily re-created, and in being so give pleasure to many who may possibly, through reason of age or mental make-up, be out of tune with this so-called atomic age.

"Design '46."

BRITISH industrial design, as displayed in the "Britain Can Make It" Exhibition, is reproduced for home consumption in a publication "Design '46," issued by the British Council of Industrial Design (Stationery Office, 6s. 6d. post free). This book, a production of very high quality and admirably edited, should do much to bring home to the sceptic the current standards of British design in all fields. There are over 20 articles by experts in differing branches of design and some 350 illustrations of goods in many classes which this country produces to-day; it is to be questioned if there exists in any country a higher all-round standard.

It is perhaps inevitable that one is left with the impression that things designed in good taste are necessarily expensive. Why this should be so is hard to say in an age when repetitive processes of production make initial costs of design not so important. It is to be hoped that the influence of this Exhibition—largely directed towards the export market—will spread downwards. But is there not a strong case for beginning applied design at the other end of the social scale? That sound advice "Physician, Heal thyself," may still be possible to follow in the furnishing sense, even if Mr. Bevan's plans for a State medical service come into operation, but it cannot be followed by the lower wage group. Why not?

Modern Sculpture and the People.

WEYBRIDGE has a museum of modern art. Organised by sculptor Jack Bilbo, it is, as yet, a small affair—in fact, merely the garden of his house, but in it have been produced two outsize pieces of sculpture, both connected vaguely with the female form. Now modern sculptors and painters are easy enough to criticise, one such criticism being that work of this kind "must be so easy to do." This, of course, may be a reflection on the artist, who, for all we know, may find it extremely difficult to do. Mr. Bilbo, an art writer of some merit, seems to know what he likes, and does it—the result, many "Picasso-esque" paintings and those monumental sculptures which make Epstein's most criticised works look positively angelic. Well, there they are, well out of the way down at Weybridge, and who in these days but the most reactionary would not say that every man has a perfect right to produce anything which gives him pleasure and is what he considers to be a work of art, so long as the result is not placed, say, in the centre of Piccadilly Circus?

Unfortunately, or fortunately, there are many schools of thought connected with art, and a great many people would be only too pleased to see Mr. Bilbo's giant masterpiece take pride of place to Mr. Gilbert's "Eros." However, art marches on, and perhaps the best example of how people, ordinary people, become converted to current taste is shown in the relative popularity of Mr. Henry Moore. Fifteen years ago this sculptor's work was very unpopular indeed, but he now enjoys world-wide fame; many people dislike his style, but almost all admire his technical skill and sensitivity to his materials.

COMING EVENTS

Monday, December 2.

THE SOCIETY OF ENGINEERS. Ordinary Meeting. Dr. H. G. Taylor, D.Sc., on "Copper Alloy Resistance Materials." Geological Society, Burlington House, W.1. 5 p.m.

BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION. Conference. Mr. A. L. Osborne, F.R.I.B.A., on "The Influence of Electricity in Building Design and Construction." Connaught Rooms, Great Queen-street, W.C.2. 11 a.m.

L.M.B.A. (North-Eastern Area). Annual General Meeting. Speakers: Mr. E. W. Garrett, President, and Mr. G. H. A. Hughes, Director, L.M.B.A. King's Head Hotel, Chigwell.

Tuesday, December 3.

L.M.B.A. (Central No. 5 Area). Annual General Meeting. Speakers: Mr. W. H. Forsdike, President, and Mr. Stanley Hearder, Director of the National Federation of Building Trades Employers. Messrs. Zeeta's, Putney.

ASSOCIATION FOR PLANNING AND REGIONAL RECONSTRUCTION. Documentary Film: "Trunk Roadways of the World." St. Pancras Town Hall. 3 p.m.

Wednesday, December 4.

ROYAL INSTITUTE OF BRITISH ARCHITECTS. Architectural Science Board Lecture. Mr. H. G. Maule, Factory Inspectorate Staff, on "Health and Welfare in Factories." R.I.B.A., 66, Portland-place, W.1. 6 p.m.

BRITISH ROAD FEDERATION. Exhibition to be opened by the Rt. Hon. Alfred Barnes, M.P., Minister of Transport. Empire Tea Bureau, 22, Regent-street, W.1. 11.30 a.m. Continuing until January 11, 1947.

THE ECCLESIOLOGICAL SOCIETY. Mr. F. Darwin Fox on "St. David's Cathedral." The Archbishop Davidson Institute, Lambeth-road, S.E.1. 7.30 p.m.

INSTITUTE OF TRANSPORT. Surrey Area Discussion Group meeting. L.P.T.B. Offices, Reigate. 6 p.m.

Thursday, December 5.

INSTITUTE OF TRANSPORT. Inaugural Luncheon of the South-Western Section, Clarence Hotel, Exeter. 12.30 p.m.

THE INSTITUTION OF ELECTRICAL ENGINEERS. Mr. W. Szwander, M.I.E.E., on "Power Supply for Generating Station Auxiliary Services." The Institution, Savoy-place, Victoria Embankment, W.C.2. 5.30 p.m.

Friday, December 6.

ROYAL INSTITUTION OF GREAT BRITAIN. Dr. Thomas Bodkin on "A New Approach to the Fine Arts in University Education." The Royal Institution, 21, Albemarle-street, London, W.1. 9 p.m.

Saturday, December 7.

THE INSTITUTE OF QUANTITY SURVEYORS (MIDLAND BRANCH). Mr. E. Tarplee, A.I.Q.S., on "Code of Measurement of Building Work in Small Dwelling-Houses." White Horse Hotel, Congreve-street, Birmingham. 3 p.m.

THE ECCLESIOLOGICAL SOCIETY. Visit to the London Mosque, West Hill, Southfields. 2.30 p.m.

A New Interpretation of Gothic.

AT a general meeting to be held at the R.I.B.A., on Tuesday, December 10, at 6 p.m., Mr. John Summerson, B.A. (Arch.), F.S.A., A.R.I.B.A., Curator of the Sir John Soane's Museum, will read a paper entitled "Heavenly Mansions: An Interpretation of Gothic."

It is over 20 years since an R.I.B.A. audience listened to a paper on the æsthetics of Gothic architecture. Mr. Summerson is to reopen the subject from a new point of view, starting from a psychological proposition instead of the familiar terms of structure and materials. He contends that we still look at the Gothic architecture through Victorian spectacles and that our appreciation of the subject has become seriously distorted in consequence.

Christmas Benevolence.

WE are glad to call special attention to a letter which appears on page 569 from Mr. L. H. Keay, President of the Architects' Benevolent Society, appealing for donations to the A.B.S. Half-Crowns Christmas Fund. Christmas is particularly the time for benevolence, and architects can find no better outlet for their generosity than in helping, through the A.B.S., those members of the profession and their dependants who are in distress through no fault of their own. We hope that Mr. Keay may have a record response to his appeal.

B.B.C. Talk.

IN the Visual Arts Programme of the B.B.C. Third Programme on Thursday, December 5, there will be a talk on Frank Lloyd Wright, the American architect. At the beginning listeners will hear a recording made by Mr. Wright on "The Right to be Ourselves," and Mr. J. M. Richards, A.R.I.B.A., will then discuss the place of Frank Lloyd Wright in contemporary architecture. The Hon. L. G. B. Brett, M.A., A.R.I.B.A., will deal with his technical methods.

Professional Announcements.

MR. DAVID E. NYE, F.I.A.A., L.R.I.B.A., has opened a London office at Westminster-chambers, 7, Victoria-street, S.W.1 (Telephone: Abbey 1650).

MR. B. W. ELLIS, F.S.I., chartered quantity surveyor, has resigned his appointment after eleven years' service with the Air Ministry Works Directorate, and has commenced practice as a quantity surveyor at 6, Wind-street, Swansea.

MR. F. W. MACKENZIE, L.R.I.B.A., chartered architect and surveyor, has changed his address from 29, St. George-street, Hanover-square, W.1, to 11, Old Bond-street, London, W.1 (tel.: Regent 3900).

From *The Builder* of 1846

Saturday, November 28, 1846.

NEW MOSQUE IN CAIRO. Mehemet Ali has constructed a new mosque near the citadel, which *The Times* says is the most splendid in the world. He has been engaged upon it 20 years, but avoids finishing it because a popular prophet has said that his life will end with the last stone being laid.

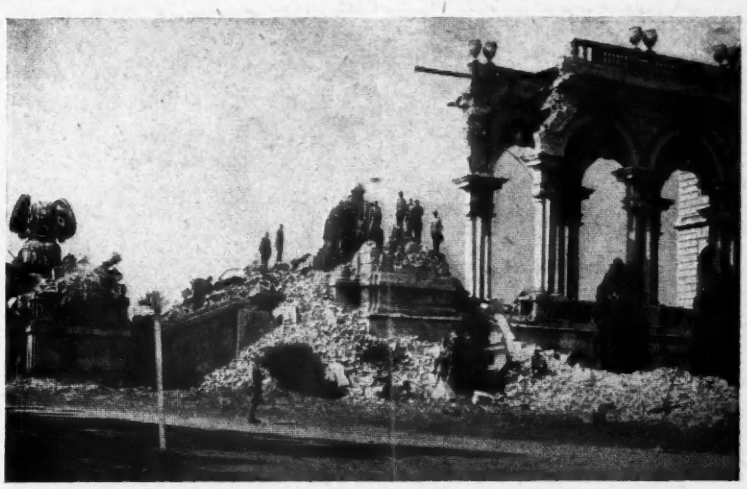
***This has something in common with the story of the Edinburgh medical student, who was left an annuity under the terms of an aunt's will for so long as he should attend the medical schools. His dismay may be imagined when, after 25 years' sojourn, he found his name in the final examinations pass list. We can only trust that Mehemet Ali did not wake suddenly one morning in Paradise, his builders having stolen a march on him and finished the job!

WAR DAMAGE IN AUSTRIA

BY MARTIN S. BRIGGS, F.R.I.B.A.

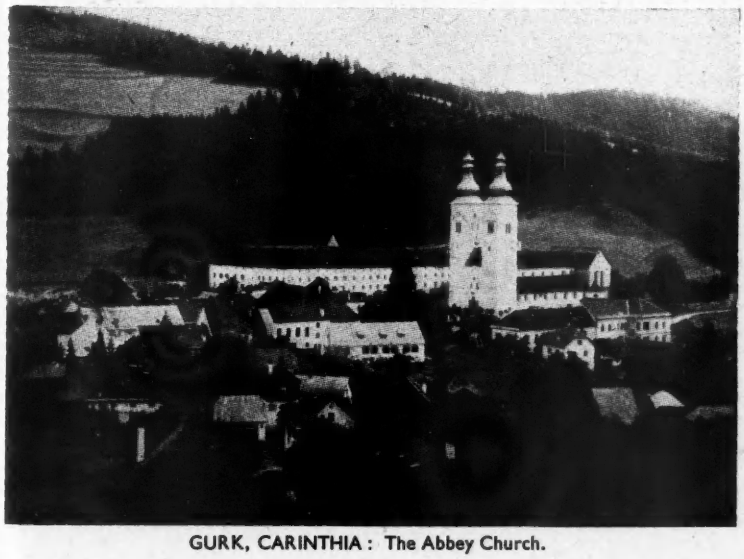
BEFORE 1914 the Austro-Hungarian Empire was one of the great states of Europe; but in 1919 it was parcelled out, and the area of the little republic of Austria which remained was only about a seventh of that of the former realm. The present report* (the fifth and last to be issued by the British Committee on the Preservation of Works of Art, etc.) is confined to the two provinces of Styria and Carinthia and to the city of Vienna, of which only the southern part is included in the British Zone of Occupation, though here the city is dealt with as a whole. Thus the area described is comparatively small and does not include some of the principal towns known to architectural tourists, notably Salzburg, Innsbruck and Linz. It would have been interesting to hear how the historical monuments, and especially the Baroque buildings, of those famous cities have fared during the war. It is explained that "the preliminary work was carried out by this country [Britain] for the whole of Austria, and information relative to their individual zones of occupation was supplied subsequently to the other three Allies." The report does tell us, however, in a welcome footnote, that the great Baroque monasteries of Kloster Melk (1701-38) and Klosterneuburg (1630-1712), both situated on the Danube outside the British Zone, have escaped damage altogether.

"The German collapse saved the British Zone from the disasters of a hard-fought campaign, and, though some of the larger towns suffered from bombing, there has been little destruction, or even damage, to historical monuments or collections. The great Baroque monasteries such as Admont, St. Florian and Vorau, are quite untouched, as is the "abbey-church of Gurk with its superb series of 13th-century wall-paintings. The numerous country houses and castles, of which Eggenberg and Hoch-Osterwitz may be quoted as fine examples, have survived with proportionately very slight loss, though a few suffered severely before our arrival, and the village churches, which often have features of great interest, count but few casualties. The most vulnerable of the towns, because the richest in fine buildings, was Graz, the capital of Styria, and a few stray bombs fell wide among the beautiful streets of the old quarter, but by great good fortune destruction was limited to things of minor importance. In the remainder of the worst-bombed towns, such as Villach, Klagenfurt and Knittelfeld, the monuments were of less consequence, but, even so, few of them have suffered. To some extent this fortunate outcome is due to the excellent measures taken by the Austrians themselves, who removed what could be dismantled, such as mediæval glass in churches, bricked up such important features as perforce remain, and evacuated collections. . . . Austria has had for many years an admirable State Protection of Monuments Service, and a similar service for archives, and it was most important that these activities should continue. The responsible Austrian officials were fortunately still at their posts, but they were helpless without the countenance and backing of British Military Government. This was forthcoming through the Monuments Officers, who supervised and guided their activities and supported them in obtaining facilities for repair work and the return of evacuated collections."



VIENNA: Ruined western extremity of the Gloriette in the park of Schloss Schönbrunn.

* "Works of Art in Austria (British Zone): Losses and Survivals in the War." Issued by the British Committee on the Preservation and Restitution of Works of Art, Archives and Other Material in Enemy Hands. H.M. Stationery Office, 2s. 6d. net.



GURK, CARINTHIA: The Abbey Church.

Styria and Carinthia.

The first part of the report, dealing with Styria and Carinthia, occupies barely two pages of text, including the passages quoted above, and is illustrated with three photographs of the undamaged abbey-churches of Gurk, Admont and St. Florian. The whole of the remaining 56 pages are concerned with Vienna and include 31 pages of excellent photographs. Hence this is not so much a report on war damage in Austria as in Vienna, where "the damage to historical monuments is more serious than in any other Austrian town. This is partly due to air-raids and partly to fighting." Beginning with the mediæval churches we find that the cathedral of St. Stephen, "the noblest Gothic church in Austria," is by far the most serious casualty. "This church was very badly damaged by fire, which was started from sparks from the surrounding buildings catching the scaffolding erected round the unfinished north tower. The famous high-pitched roof burned for three days and was utterly consumed. The walls of the building and the *Alte Stefferl* still stand. The vaults over the nave and the nave-aisles are intact, but those over the choir and the south choir-aisle were destroyed when a high wall, supporting the roof above, crashed through them. The piers of the choir are badly scarred and burnt. The Gothic choir-stalls are completely destroyed, as well as the important large 12th-century wooden crucifix. The Baroque organ in the nave was also destroyed, but its Gothic gallery is standing. The tomb of Frederick III and the pulpit are intact, and the 14th- to 15th-century stained-glass windows were stored in safety. Repairs are being undertaken," and are illustrated in some interesting photographs. The other Gothic churches of the city have mostly suffered minor and repairable damage.

Baroque Churches of Vienna.

Of the numerous and important Baroque churches of Vienna, the famous Karlskirche (1716-28), by J. B. Fischer von Erlach, "had a miraculous escape from seven near-misses"; the splendid oval Peterskirche, by the same architect, and

VIENNA: The damaged Schwarzenberg Palace.

the Jesuitenkirche are "substantially intact"; and the others have either survived unharmed or have sustained comparatively negligible injuries.

Most of the chief palaces and other historical secular buildings of Vienna are in the Baroque style, and most were designed by Johann Bernhard Fischer von Erlach (1650-1723), his son Josef (1695-1742), and Lukas von Hildebrandt (1666-1745). They are rightly described in the report as forming "one of the most characteristic features of old Vienna." They "have suffered considerably, though, generally speaking, the buildings themselves and their decorative fittings are not beyond repair." The largest and most important is the former royal palace of Schönbrunn, which lies some 2½ miles south of the Ringstrasse, and is now used as British Headquarters. Originally designed by Fischer von Erlach the elder in 1696 and completed by Paccassi in 1744-50 for Maria Theresa, it is an enormous pile, said to contain 1,441 rooms, and is celebrated for its florid late-Baroque or Rococo internal decorations and its magnificent formal gardens, laid out in 1753-55. A feature of these gardens is the beautiful "Gloriette," a pavilion on a hill from which one looks down to the great palace below. This little building was partially demolished by a bomb. The other notable casualty at Schönbrunn was, "ironically enough," a fresco of "War," by Guglielmi!

Within the city itself, the damage to Baroque palaces was far more serious. The great Imperial Palace known as the Hofburg, with its fine library and riding-school, has escaped with relatively little hurt. The famous "Belvedere," designed by Hildebrandt, adjoins the South Station, a frequent target for bombers, and has suffered severely as a result. The upper storey of the so-called "Upper Belvedere" was hit, the internal decorations of the "Lower Belvedere" were injured, and the fine gardens were disfigured by bomb-craters which destroyed many of the statues. The old University Building, now the Academy of Sciences, was slightly damaged. The Ministry of the Interior, formerly the Böhmische Hofkanzlei, by Fischer von Erlach the elder, has lost its roof. The Ministry of Finance, formerly Prince Eugen's town-palace, by the same architect in collaboration with Hildebrandt, suffered some internal damage to its staircase and apartments. The Liechtenstein town-palace in the Bankgasse, ascribed to Martinelli, sustained damage to its fine Baroque staircase. The splendid Schwarzenberg Palace, by Fischer the elder and Hildebrandt, has been very severely damaged, both externally and internally. The Hungarian Legation (1784), a fine Rococo design by Paccassi, has lost its roof and some of its delicate interior decorations. Among famous Baroque palaces which have survived with little or no injury are the Kinsky Palace by Hildebrandt, one of the most original and attractive works of the period, now used as a British officers' club; the summer palace of the Liechtenstein family by Martinelli; the Lobkowitz Palace (1685), with a façade (1710) by Fischer the elder; the Trautson Palace and the Schönborn Palace, both by the same architect. Nearly all the charming Baroque fountains in the old city have escaped damage, the exception being Josef Fischer von Erlach's "Josefs Brunnen" (1732). The admirable collections in the Baroque Museum are safe.

The report does not deal with modern buildings, but photographs illustrate terrific damage at the great Opera House (1861-69), designed by E. van der Nüll and A. von Siccardsburg; the Burg Theater (1876-89), by Semper and Hasenauer; the Kunsthistorisches Museum (19th century); and the Houses of Parliament (1883), an imposing building by Hansen in the Greek style. The report concludes with a detailed description of the damage sustained by the great art-galleries, museums and libraries in which Vienna was particularly rich. Taken as a whole, this long tale of destruction makes sad reading; but, of all the countries overseas in which our long-suffering soldiers have to serve, Austria must be one of the least unpleasant.

U.N.E.S.C.O. EXHIBITION

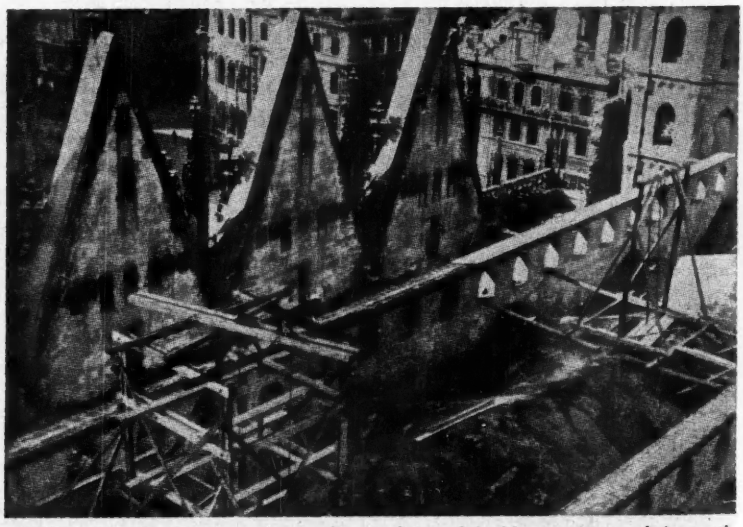
BRITISH ARCHITECTURE, 1939-1946

On behalf of the Ministry of Education, the British Council has arranged for British contributions to the U.N.E.S.C.O. Exhibition of Architecture, which is being held in connection with the first general conference of U.N.E.S.C.O. in Paris.

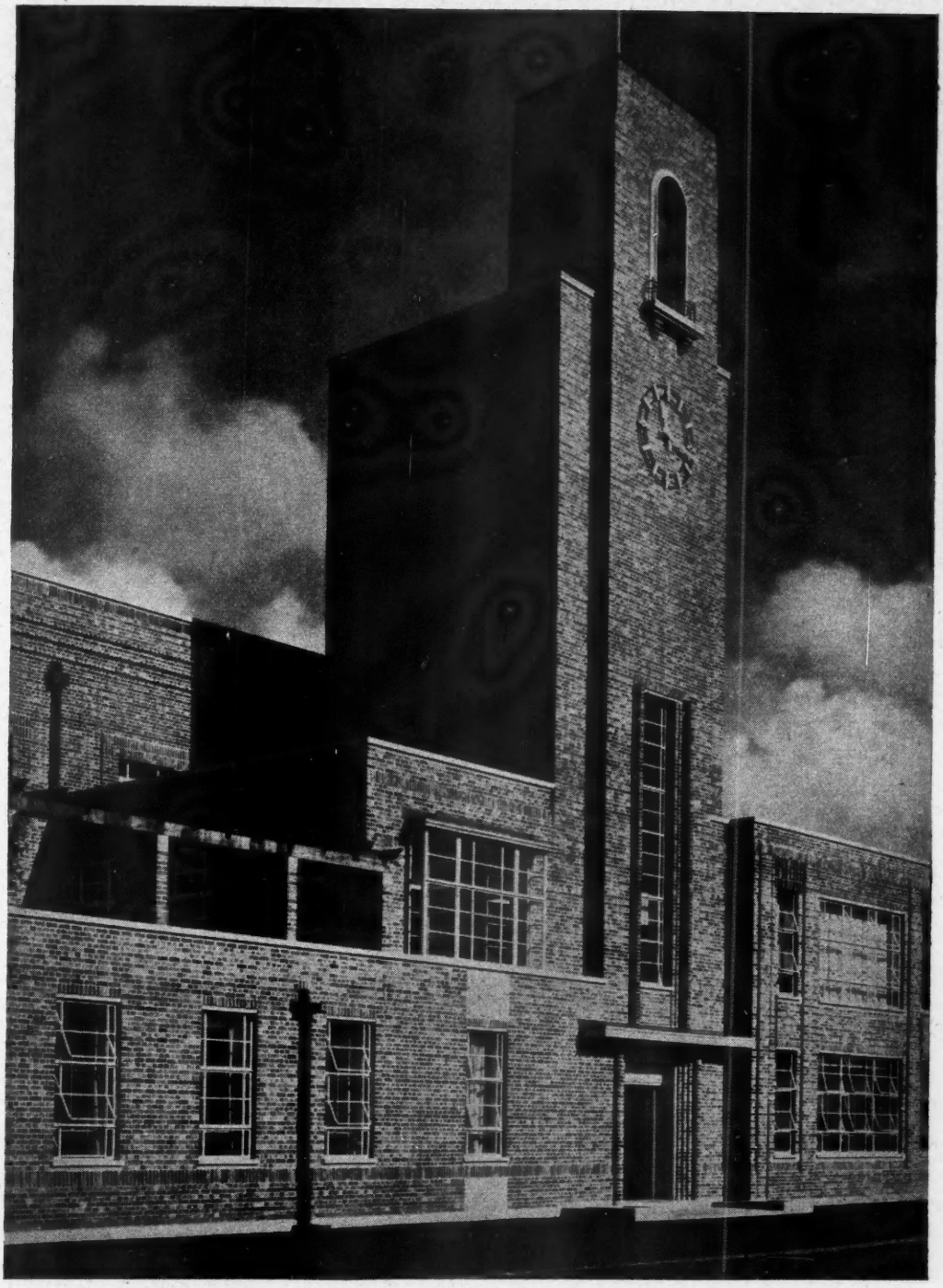
The R.I.B.A. has been able, in collaboration with the British Council, to prepare a small exhibition (11 large panels) illustrating work done in this country between 1939 and 1946 for inclusion in this exhibition. Mr. Edward J. Carter, A.R.I.B.A., late Librarian of the R.I.B.A., is primarily responsible for the exhibition, at which the architecture of all the member nations of U.N. will be represented.

The exhibition, designed to show very briefly some of the essential building and planning which has been carried out by British architects during and immediately after the war years, consists of 11 wall panels, supplemented by four models, varying in size from 2 ft. to 8 ft. long, and includes examples of war-time housing, war-time industrial hostels, prefabricated housing, municipal housing, some of the work of the Miners' Welfare Commission, schools, hospitals, and a model of the proposed new elephant-house at the London Zoo.

The work of the following architects is shown: Grenfell Baines Group, Tecton; Architect's Dept., Miners' Welfare Commission; Mr. E. Maxwell Fry, F.R.I.B.A.; Miss Jane Drew, F.R.I.B.A.; Mr. H. Vicars Lobb, F.R.I.B.A.; Messrs. Stanley Hall and Easton and Robertson, FF.R.I.B.A.; Mr. Frederick Gibberd, F.R.I.B.A.; Mr. C. G. Stillman, F.R.I.B.A.; Messrs. Hening and Chitty, F.R.I.B.A.; and Messrs. Fairweather and Jordan, FF.R.I.B.A.



VIENNA: The Stephansdom, showing the condition of the Nave vaulting and the south aisle gables before reconstruction of the roof.



Detail of Main Entrance and Tower.

KING EDWARD VI SCHOOL, SOUTHAMPTON

E. BERRY WEBBER, A.R.I.B.A., ARCHITECT

View of Part of Main Front.

KING EDWARD VI SCHOOL, SOUTHAMPTON

E. BERRY WEBBER, A.R.I.B.A., ARCHITECT

THIS IS A GRAMMAR SCHOOL FOR BOYS, completed just before the war, and opened by Lord Mottistone, Lord Lieutenant of Hampshire. The boys were evacuated to Poole during the war and the buildings taken over by the military authorities. A stick of bombs fell across the site during the heavy blitz on Southampton, and the Library, to the south of the Assembly Hall, was demolished and the caretaker's house completely wrecked. Repairs have now been undertaken, necessitated both by bomb damage and military occupation, the boys have now returned and the school is once more in almost normal use.

The plan of the school was the result of the necessity to occupy as little of the site as possible, which had to be devoted to its greatest extent to playing fields; therefore it is planned along the northern boundary in rather elongated fashion, with dining room, assembly hall, library, etc., to the west connected to a central quadrangle containing the teaching rooms on two floors, and a further wing to the east containing the double gymnasia, workshop, etc.

Elevationally, an attempt has been made to make architectural interest by contrast between the open fenestration of the classrooms and the broader solid wall surfaces of the assembly hall, tower, etc., thus getting away as much as possible from the rather stark utilitarian appearance that so frequently marks the modern school. Following out literally the building requirements of to-day, daylight factors, etc., present very little opportunity of giving the modern school individual character; too frequently it becomes such a close relation to the factory as to be hardly distinguishable therefrom.

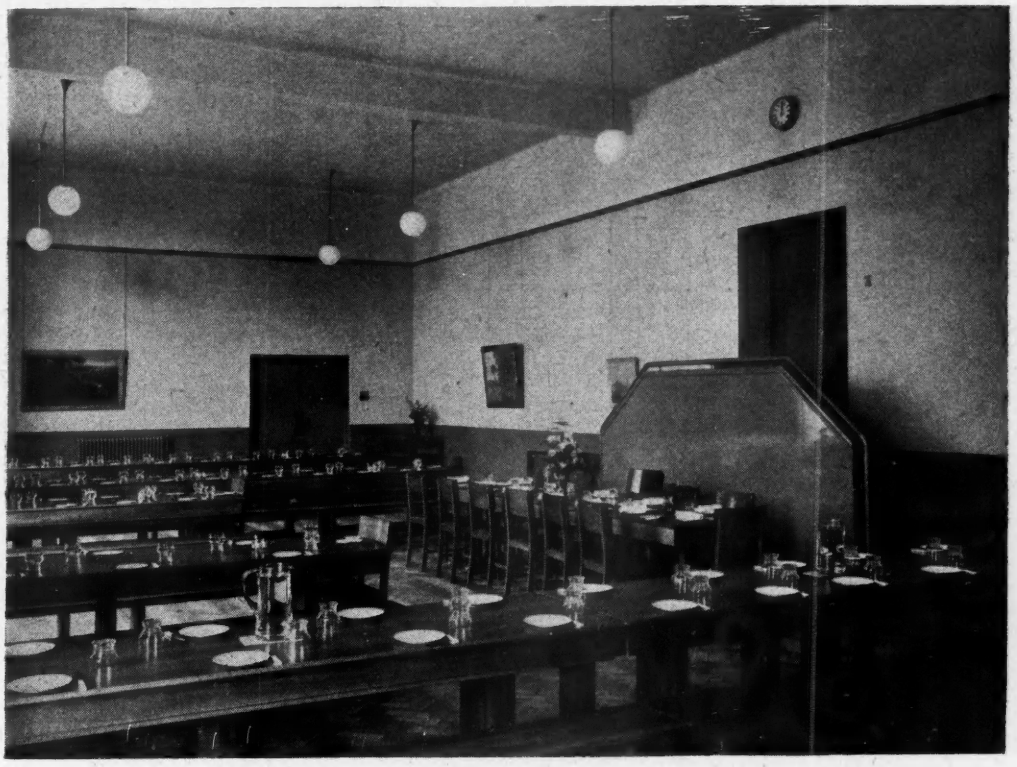
Externally, the elevation is of multicoloured brown bricks with dressings of reconstructed stone. The Memorial Library was a gift from the Old Boys and was of a quality much above the usual standard for such a school, and although the carcase has been rebuilt, it is hoped to re-establish it later on its former basis.

The assembly hall is fully equipped for both stage and screen entertainment, and the dining room is so planned that it can on occasions function either as a green room or as an additional foyer in connection with the hall. The colour scheme was varied throughout the classrooms.

The flat roof over the library, with its pergola, made a natural grandstand for watching school sports, but the pavilion in the south-west corner of the grounds was previously existing and does not form part of the new buildings.

Messrs. W. T. Nicholls were the main contractors for the school and the following is a list of the subcontractors:—

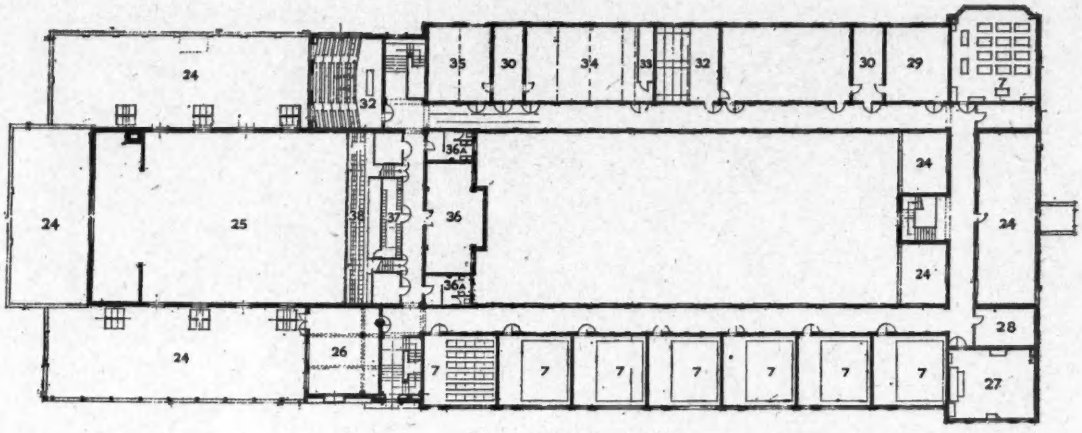
Luxfer, Ltd., metal windows; Hadens, Ltd., heating; Griersons, Ltd., electrical work; Gillett & Johnston, Ltd., clocks; Diespeker, Ltd., floors and terrazzo; F. Braby, Ltd., copper roof to assembly hall, and Sussex Brick Co., Ltd., bricks.



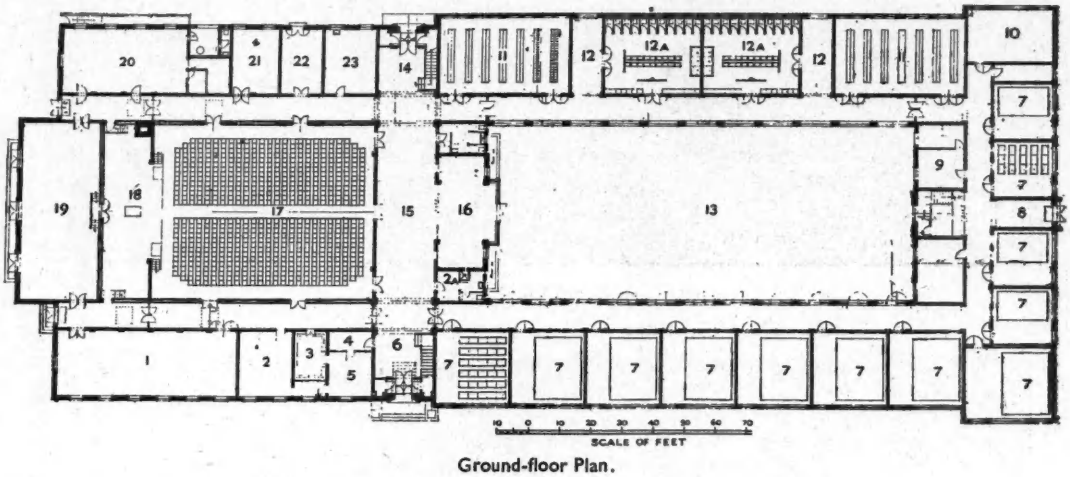
The Dining Hall.

The Assembly Hall.

KING EDWARD VI SCHOOL, SOUTHAMPTON



First-floor Plan.



Ground-floor Plan.

KEY TO ROOMS

1. Library.
2. Headmaster's Room.
2A. Headmaster's Lavatory.
3. Records.
4. Waiting Room.
5. Secretary.
6. Main Entrance Hall.
7. Classrooms.
8. Gymnasium Workshop.
9. Prefects' Rooms.
10. Craft Room.
11. Cloak Rooms.
12. Scholars' Entrance.
12A. Scholars' Lavatories.
13. Courtyard.
14. Entrance Hall.
15. Crush Hall.
16. Music Room.
17. Assembly Hall.
18. Stage.
19. Dining Room.
20. Kitchen.
21. Stationery and Book Store.
22. Scenery Store.
23. Medical Inspection Room.
24. Flat Roof.
25. Upper Part of Hall and Stage.
26. Biology Laboratory.
27. Geography Room.
28. Store.
29. Advanced Physics.
30. Preparation Room.
31. Elementary Physics.
32. Lecture Room.
33. Balance Room.
34. Elementary Chemistry.
35. Advanced Chemistry.
36. Staff Room.
36A. Staff Lavatories.
37. Locker Room.
38. Gallery to Hall.

THE SEVERN BRIDGE

TESTS ON MODEL.

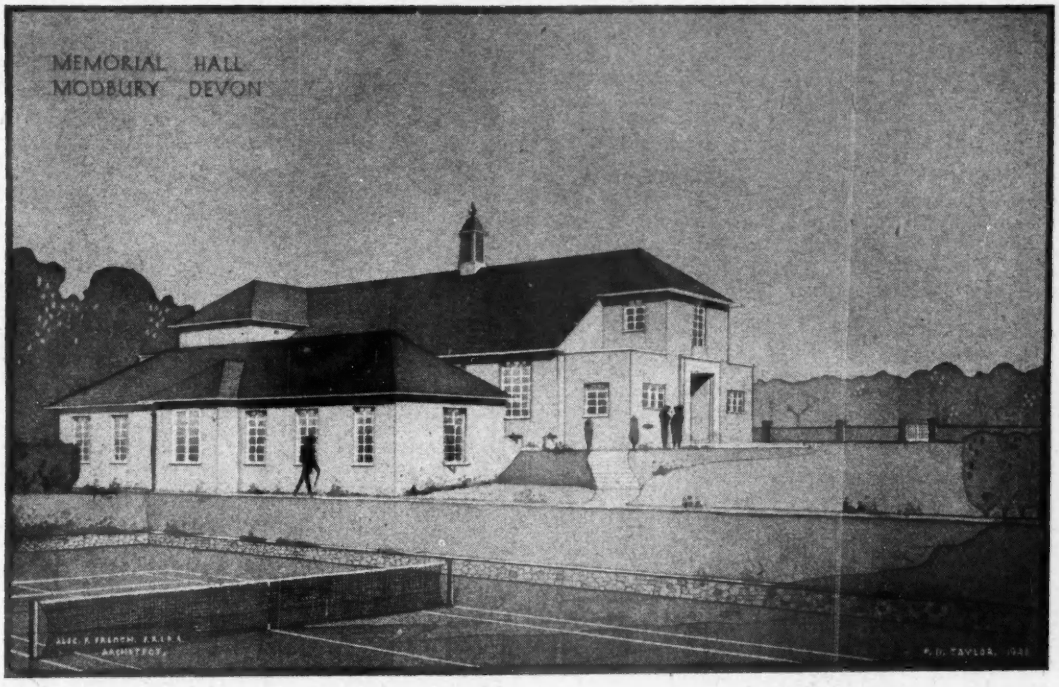
SCIENTISTS from the National Physical Laboratory are to carry out a special investigation for the Ministry of Transport into the effect of wind forces on a model of the proposed 3,000 ft. span suspension bridge over the River Severn.

The tests will be made in a specially designed wind tunnel, large enough to house a model 52 ft. long, in which it will be possible to observe the effect of a wind striking the bridge from any quarter. The tunnel, one of the largest in the country, is being built under the direction of the Ministry's engineers. It is hoped to complete it in time for experiments to begin early next year.

A research team headed by Dr. R. A. Frazer, F.R.S., will carry out the experiments, which have been arranged by the Department of Scientific and Industrial Research. The results will enable the bridge designers, Messrs. Mott, Hay and Anderson, and Messrs. Freeman, Fox and Partners, to choose the form of suspension bridge best suited to withstand any wind forces that may be experienced.

Very large wind forces have to be taken into account in the design of big bridges, and although suspension bridges as large as or larger than that proposed over the River Severn have been successfully built in America, the Ministry of Transport is leaving nothing to chance. The old Tay Bridge collapsed in 1879 in a high wind, and in 1940 the Tacoma Narrows suspension bridge in America, nicknamed "Galloping Gertie" because of its tendency to vibration in a wind, finally broke up, fortunately without loss of life. A film was taken of the Tacoma Bridge in motion right up to the moment of the final collapse, and this has been studied by American and British engineers.

Since then, much further research into these problems has been carried out in America. The investigations now being arranged by the British scientists will cover extensive new ground, and will greatly assist the design of a safe and economical Severn Bridge.



DESIGNED AS A CENTRE FOR SOCIAL ACTIVITIES of the village community of Modbury, Devon, this building includes in its site layout a car park, children's playground, tennis court and "old peoples' corner."

The building will include a main hall seating 350–400, capable of use for general purposes, dancing and badminton, and provided with stage and projection room for theatricals and cinematograph shows. Adjoining the stage will be adequate provision for dressing room accommodation, capable of use as utility or committee rooms as and when necessary. There will be provision of two club rooms, one for use as a billiards room, the club section being entered separately or through a lobby from the main hall. A kitchen is provided to serve refreshments both to the main hall and club rooms. There is adequate cloakroom and lavatory accommodation for the main hall, club rooms and dressing rooms.

A separate boiler house and fuel store for the installation of central heating by means of low-pressure hot-water system have been planned.

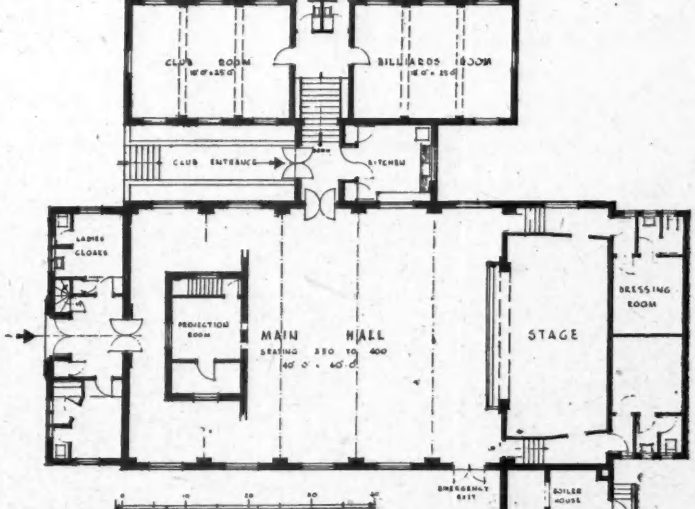
The projection room shown on the plan reproduced below is located above the entrance hall, from which it is reached by a staircase. The architect is Mr. Alec F. French, F.R.I.B.A., of Bristol.

MEMORIAL HALL

Proposed for

MODBURY, DEVON

ALEC F. FRENCH, F.R.I.B.A.,
ARCHITECT



GROUND FLOOR PLAN

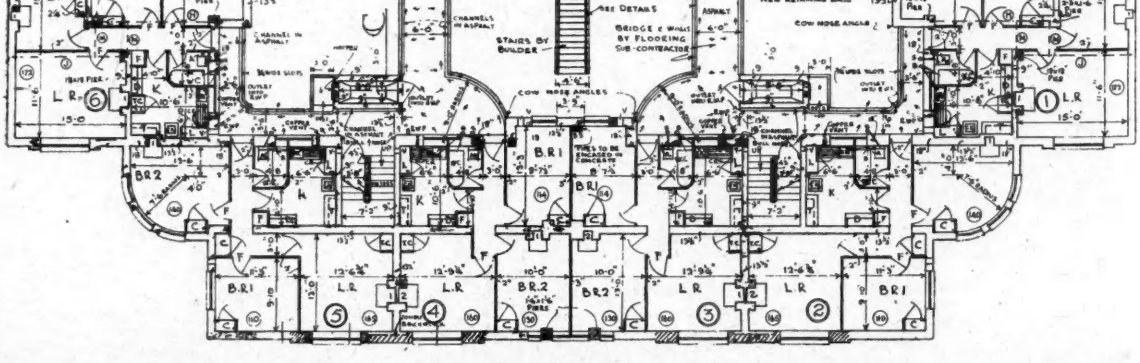
WEST INDIA HOUSE, STEPNEY

B. W. STUTTLE, F.R.I.B.A., BOROUGH ENGINEER & SURVEYOR

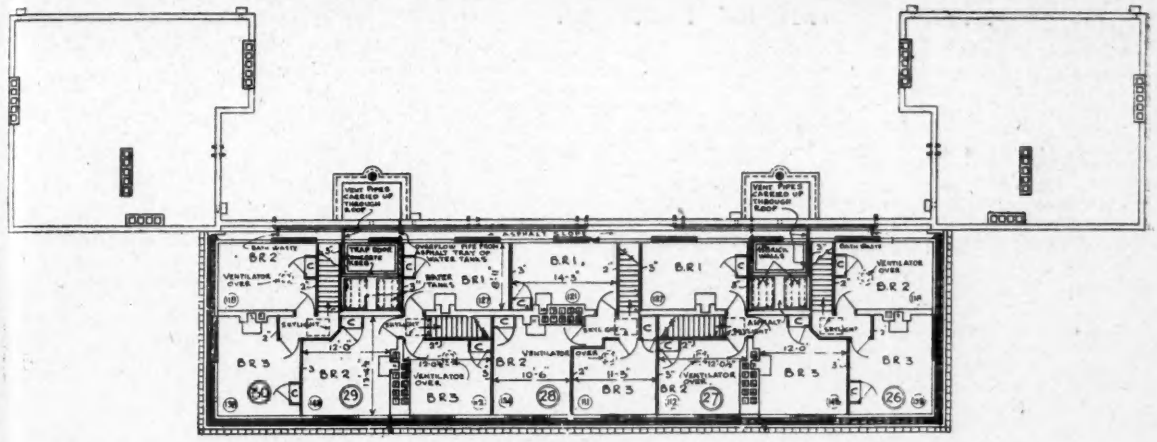
WEST INDIA HOUSE, PLANNED IN 1939, IS A FIVE-STOREY block of 31 flats, 15 having living-room, kitchen and three bedrooms, and 16 having living-room, kitchen and two bedrooms. Of the 3-bedroomed flats, five are planned as maisonettes on the fourth and fifth floors. All have bathrooms, lavatories, etc. The flats are to be opened by the Prime Minister, Mr. Attlee, on Saturday, November 30. Private balconies are placed on the south side of the building, and access balconies on the north. Hot water is laid on to sinks and baths, from indirect hot water cylinders with electric auxiliaries. The tenants have a choice of electricity or gas for cookers, wash boilers, fires, etc.

As the former building had a large basement with surrounding areas, the new building has been erected on a steel substructure, and the basement is available for the drying of clothes and may also be used by children as a playground in wet weather. There is a large open space in the rear, and also perambulator and bicycle stores.

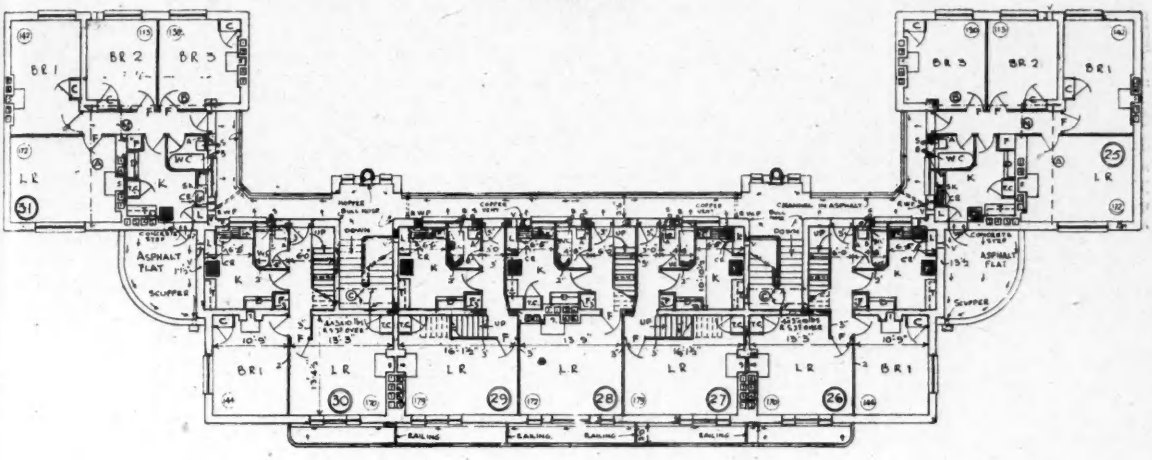
The brick elevations have a dark red base to first-floor level, with buff brickwork above, which continues up to terminate in cornices or serrated parapets. The building has reinforced concrete floors and balconies. The mansard roof is covered with green glazed tiles, and the flats with asphalt. The work was commenced in 1945, and completed in one year, the man-hours on site being 4,200 per flat. The ultimate cost is expected to be about £40,000.



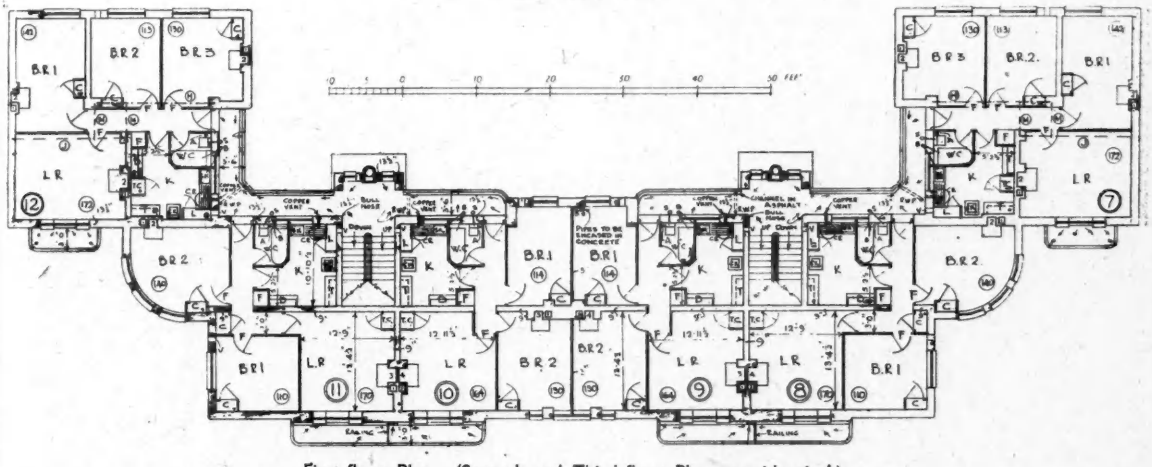
Ground-floor Plan.



Fifth-floor Plan.



Fourth-floor Plan.



First-floor Plan. (Second- and Third-floor Plans are identical.)

The architect is Mr. B. W. Stuttle, F.R.I.B.A., M.I.M. and Cy.E., the Borough Engineer and Surveyor, the general foreman, Mr. Batten, and the clerk of works, Mr. Punter. The builders were Haymills, Ltd., Hanger Green, W.5.

Sub-contractors were: *Steelwork*, Dorman Long and Co., Ltd.; *concrete floors and balconies*, F. Bradford and Co., Ltd.; *metal windows and doors*, George-Jennings Hamer (Windows), Ltd.; *steel door frames*, John Thompson (Beacon Windows), Ltd.; *floor coverings*, Stonart Asbestos Flooring Co., Ltd.; *faience*, Carter and Co.; *bricks*, The Uxbridge Flint Brick Co., Ltd., and Passmore and Co., Ltd.; *combination gas-ignited coke-burning grates*, Pryke and Palmer, Ltd.; *electricity supplies*, Stepney Borough Council Electricity Undertaking; and *gas supplies*, Commercial Gas Company.

WEST INDIA HOUSE, STEPNEY. B. W. STUTTLE, F.R.I.B.A., M.Inst.M. & Cy.E., BOROUGH ENGINEER

PRODUCTION FORUM

"THERE IS NO HOPE FOR A FURTHER IMPROVEMENT OF SOCIAL CONDITIONS, OR OF more money for improved standards of living unless the productivity of the country receives a boost." These words of Mr. Tomlinson serve to focus attention on the biggest problem which faces all industry to-day. With the purpose of doing our part to stimulate production in the building industry, through better organisation and site management by master builders and higher quality of work and increased output byoperatives, we intend to give publicity at regular intervals to any plans devised to this end by all branches of the industry and particularly by the Regional Production Committees and their Production Officers. By giving prominence to this matter we shall hope to provide a "Production Forum" to which all may contribute and on which all may draw. To this end we shall welcome ideas and illustrations for publication.

THE WORK OF A REGIONAL PRODUCTION OFFICER

DESPITE the obvious difficulties which were expected at the outset, the Regional Production Officers working under the National Joint Production Council for the Building Industry have made a commendable start in their task of increasing output.

Last week Mr. J. Nickson, production officer for the London area north of the Thames, described, in the course of an interview with a representative of *The Builder*, some aspects of the work which he had been doing since taking up office.

"Let me say at the outset," said Mr. Nickson, "that local councils, builders and the representatives of the men's organisations in my area are making increasing use of this office. That is important, for it at least gives us the satisfaction of knowing that our services are needed.

"Letters have been sent out to local authorities, contractors and operatives setting out our aims, and each day brings a large pile of mail drawing attention to a variety of difficulties which are being experienced in my area. A week or so ago a local authority contacted me because work on a housing site was being held up as deliveries of a certain component were not forthcoming. Inquiries at the firm of manufacturers who were under contract to supply the component to the local authority showed that production had been switched to another product altogether. After consultation with the firm's executives production was recommenced on the manufacture of the component required by the local authority, and within 24 hours deliveries were being made at the site.

"We have fairly wide powers, and although we are advised and do adopt the 'usual channel' approach, it is, however, necessary at times, owing to the urgency of the situation, to take direct action. We are not supermen, and cannot perform miracles, but with the full co-operation of all concerned our efforts can be successful."

The Small Firms.

On the subject of labour in the building industry, Mr. Nickson had some significant observations to make. "In my area," he said, "there are literally dozens of small firms which each have on their books first-class craftsmen who have no wish to leave their employer. In some instances they may have been with the firm for a long period of years, even from their apprenticeship days. At the present time, what with the restrictions in the issue of building licences and the difficulty of getting materials, there is no work for these small firms to do. Therefore, in order to keep the men employed, the firms carry on with non-essential work. Thus, a great wealth of building craftsmanship and plant is lost to the house-building programme.

"To some of these firms it has been suggested that they seek a sub-contract with another builder working on house production, and there are encouraging signs that an increasing number are doing this. To others it has been suggested that they combine their labour and plant to make a firm large enough to carry on big contract work. It can be done successfully, but the idea is by no means acceptable to all, although it will help keep them in business until things alter. Perhaps the main objection is that individual contractors feel they will lose standing and reputation, but the sooner some scheme is introduced whereby their plant and labour can be used in the housing programme the sooner that programme will be completed.

"Why, I have had a small firm of this kind in here which had 20 bricklayers on its books—none of them employed on housing work. There are other cases; one, I remember, where a firm had eight painters who had no desire to leave their employer and were just hanging on, hoping that something would turn up."

On the question of the individual output of building craftsmen and labourers, Mr. Nickson outlined both sides of the picture. "After all," he explained, "where you have, as is often the case, two contractors working on different contracts on opposite sides of the same road, and one provides a canteen and other welfare amenities for his workmen, and the other does not, it is unreasonable, if not foolish, to expect the men not to seek for preference employment by the contractor who is alive to their welfare requirements. I know that some local authorities have requested contractors to set up canteens, but they cannot make them do so, and it does seem to me that some standard should be set whereby canteens are operated on all building sites, the size of the canteen and the scope of its recreational amenities being proportionate, say, to the number of men on the site.

A Further Consideration.

"Of course, there is also the other side of the individual output subject to consider—the actual effort made by the men. It sounds odd, perhaps, but you can tell almost as soon as you walk on to a site whether the men are all pulling their weight and the employers are looking after the men, but there are instances where, despite strenuous encouragement by the employer, the men are not doing a fair day's work. This is the type of job we are most interested in, for 200 to 250 bricks a day is hardly a fair day's work, and one usually finds there is some petty grievance or a lack of organisation that is the cause of it, but it is disturbing to have to note such cases; this type of complaint is not general, for the majority of the building trade workers are conscious of the important job they are doing and are pulling their weight. Too often do people criticise the speed of a contractor without knowing the circumstances. No builder or building operative can erect houses without materials, and the shortage of certain types of materials is seriously holding up the building programme."

With reference to labour, Mr. Nickson said, "There is certainly a shortage of building trade labour in the London Region. The trainee scheme seems to be working quite well, and good reports are to hand of the men trained under this scheme who have been tried out in actual building contracts. Every effort is being made to interest builders in this type of labour to help ease the labour problem. After all, it is a job worth doing. Nobody can gainsay the urgency of providing homes for the people, and there is no reason why, with all-round co-operation, they cannot be provided in record time."

THE CASE FOR THE GUARANTEED WEEK

TO THE EDITOR OF *The Builder*.

SIR,—I read with very great interest your leading article on Building Production in the issue of *The Builder* for November 22, and also the article, "Production in the Building Industry," and I should like to say that I agree very strongly with the matter contained in both these articles.

With particular regard to the paragraph dealing with efforts by contractors, and showing the methods of Messrs. Holland and Hannen and Cubitts, Ltd., I would say that my own firm is also experimenting in a similar manner, especially with our North Country jobs. We have a branch office in Darlington, which is operating four fairly large contracts, and we are, by every means in our power, trying to make the operatives feel that they are part of the necessary organisation, and part of a large unit.

We publish a news sheet, presumably on similar lines to Messrs. Holland and Hannen and Cubitts, because it is designed entirely to put the employees "in the picture," and pursues a very "down to earth" policy. This has proved a popular feature. I feel, like you, that one of the main necessities is to do everything possible to make the operative feel that he is of importance, and that love of the job for the job's sake is essential.

I firmly believe that once these two points have been realised by the operatives, there should be no further worries about output, because a happy man always works better than an unhappy one.

We have also adopted the principle of Site Councils to discuss every subject appertaining to the job, in the most friendly atmosphere, and I, personally, have learnt a great deal from these discussions.

There is only one point which I would question, and that is whether or not payment by results is entirely desirable. There are well-known abuses with this system. My personal view is that one of the attendant evils in the building trade is lack of a guaranteed week, and I think that if the full working week were guaranteed this would obviate a great many of our troubles. Coupled with this, a scheme similar to the one operating in the Army would be helpful, *i.e.*, the grading of tradesmen in Grades 1, 2 and 3, in accordance with their ability, proved by their having to take certain tests, which should be set by the Trade Unions themselves.

If only all building employers would realise that the responsibility of making

the first step towards overcoming the distrust which has grown up between operative and employer is theirs, I am sure the trade would become much happier. To my mind, it is clearly the duty of the employer to start the ball rolling.

H. VINCENT,
Director of Nox, Ltd.
55, New Bond-street, W.1.

PRODUCTION IN THE BUILDING INDUSTRY

AS IT WAS IN THE OLD DAYS

A CORRESPONDENT calls our attention to a letter which appeared in a recent issue of "The Listener," comparing conditions and output in the building industry a generation and more ago with what they are to-day. The letter, which is signed "W. B. Archer," reads as follows :—

As a retired builder and looking back into the 'nineties, I read with much amusement the bricklayers' point of view as broadcast by Messrs. Leslie Merrion and George Reardon. Our present troubles have been accelerated by the two wars, but the real cause is forgotten. In the years 1900-1909, 300,000 to 500,000 houses were being built annually. Men were commencing work at 6 a.m., and before that were making for work by tram or on foot. To-day they are in bed at this hour. Six-roomed houses, forty to fifty years ago, cost £135 to £250 each, with a £3 to £4 ground rent, and people could buy them at this figure, the builder being satisfied with the profit on his ground rents. Those were the days when houses were let at 6s. 6d. per week and a tenant could always reckon that 15 per cent. were empty and he could choose where he lived.

Bricklayers built houses (brickwork labour only) at a price varying from £22 to £27 per house, including drains, and those were the days when at the end of the day the scaffold was filled with bricks ready for next morning's work. In winter, even fires, coke in buckets, were ready on the scaffold for the morning in case of frost. The men built a shanty with a brick fireplace, and the only lavatory accommodation would be four sheets of corrugated iron, and a hole in the ground with a pole across. I remember the time well. Men went away with their boots cleaned in the evening, and were far happier than to-day, all on £2 4s. 6d. a week, and if a man laid less than 1,000 bricks a day on rough work, it was simply a case for the bricklayer sub-contractor to pay him off, and there was no dole. There was no bad-weather pay and no holiday pay.

This went on until 1909, and the houses built in the previous ten years at a cost of £135 to £250 each are not slums to-day, but good houses. What happened in 1909? Lloyd George's budget came in and we commenced the first period of filling in forms. All people owning land for building purposes had to fill in these forms, and if builders put up houses on their own land they were allowed, I think, 10 per cent. profit on land; if more, this went to the State. This resulted in a drop in production to less than 90,000 houses a year and the building trade was crippled. The Government then realised their error and the Land Act suffered death, but before we recovered, the 1914 war was on and the building of houses was completely stopped.

After the war, when labour was scarce, private enterprise failed because certain sections would not do a full day's work, so councils and corporations started building on a cost-plus-profit basis, which had the result, round about 1922, that bricklayers were laying only 250 bricks a day and houses costing £250 each in 1900 were now costing £1,250 and more. Conditions improved after 1925 through the efforts of private enterprise, but the old standard of "will to work" has never returned. Over fifty years back, when I worked with the men, there was no heating apparatus in the shops. Our meals with the men were good, sufficient and pleasant, and we worked to get warm in the winter. There were no closed shops. Men worked for sub-contractors who were themselves skilled men, and the men respected them.

I think the building trade is in a hopeless plight, and will continue to be so as long as it is controlled and without freedom. I know that if these controls were lifted there would be chaos at present, but out of chaos would emerge enterprise, which is impossible whilst the industry is under State control. I realise a builder should have the guidance and supervision of local surveyors and by-laws, and that building should come under the control of town planning, but will having a Civil Service staff of 100,000 to look after 600,000 operatives and master builders get us peace and prosperity in the building trade? I always supported trades unions, until their strength in themselves came before production. When this occurred through the cutting out of all piecework, the good workman was reduced to the level in production of the average rank and file and the price and rent of houses increased.

Commenting on the foregoing letter our correspondent writes: As I see the industry to-day, whilst I agree mainly with Mr. Archer's letter, I do feel that insufficient stress is laid upon two things: (1) the willingness to work, and (2) the matter of food. The latter, in my considered opinion, is responsible for the former; how can we reasonably expect workmen engaged on heavy manual operations to carry out these works if they have only bread and margarine for breakfast and only a small midday meal at the coffee-house? I feel that the matter of food is one that should be closely studied by the appropriate Ministry which reigns over our industry at the moment.

CORRESPONDENCE

Specifications of To-day.

TO THE EDITOR OF *The Builder*.

SIR,—The writer feels that the time has come for the Master Builders to present most strongly a case to various Ministries and also to the London County Council for much simpler forms of specification at the time of tendering.

It is usual for the Ministry of Works and the London County Council to send out tendering documents accompanied by a considerable amount of printed matter and detailed specification. The bulk of the information is hardly relevant to the contract from the estimator's point of view.

Not so very many years ago estimates for very large buildings were prepared on the basis of a few words in the preamble of the trades, giving the estimator just the amount of information he requires.

Nowadays, at a time when the selection of materials is almost down to the minimum, it is apparently necessary for an estimator to read laboriously through reams of specification in an endeavour to find out just what he has to allow for in his price. It would be a matter for the congratulation of the specification writer if ultimately this objective was attained. It is, however, more true to say that after wasting much valuable time, one finds a clause of pre-war vintage specifying something that has not been seen in this country for many years.

Further, more often than not, the important items are surrounded and drowned in all that information which is vitally necessary perhaps to the foreman and the clerk of works during construction, but equally vitally unnecessary to the estimator. If the quantity surveyor has done his job properly, these items should be represented in quantity and description in the bills, in the proper manner.

Quite apart from the paper wasted, there is the question of the time taken by each estimator studying these formidable documents. This task is made more difficult because of the variety of contracts prevailing to-day, the bulk of which appear to rely upon volume rather than brevity. It is an important task for a skilled and experienced estimator to attempt to understand thoroughly these papers. It is a painful, nerve-racking and worrying task for a junior estimator, and something he can well do without.

On behalf of that long-suffering body of estimators, therefore, I make a plea that every effort should be made by the builders to introduce the necessary reforms.

I consider it should be made law that specifications be incorporated briefly and clearly into the bill of quantities by way of a preamble to the trade in question. Nothing described fully in the bill need be mentioned in the preamble.

C. RANCE, A.I.O.B.
Maidstone, Kent.

A.B.S. Christmas Appeal.

TO THE EDITOR OF *The Builder*.

SIR,—May I make a very special appeal this Christmas on behalf of architects, architects' assistants, their widows and orphans on whom misfortune has fallen and who look to the Architects' Benevolent Society to help them in their distress?

We often grumble at the high cost of living, but I doubt whether we realise what this means to all those for whom the bare necessities of life are almost luxuries.

I know how many calls are made at this time of year, but I make a personal appeal to every member of the profession to send me at least one half-crown and as much more as can be spared. We never miss the help we give to others and we have a special obligation to relieve the distress of those in whose name I ask for a generous contribution to the funds of the Society.

L. H. KEAY,
President, Architects' Benevolent Society.
66, Portland-place, W.1.

COMPETITION NEWS

Layout of Hayling Beachlands.

THE assessor, Dr. H. V. Lanchester, D.Litt., F.R.I.B.A., M.T.P.I., has made his award in the open competition for laying out the Hayling Beachlands, for Havant and Waterloo U.D.C., as follows:

1st (£200): Messrs. Vine and Vine, AA.R.I.B.A., Tudor Chambers, Station-road, Wood Green, London, N.22.

2nd (£100): H. Collins, F.R.I.B.A., M.T.P.I., and J. N. Calton, 32, Carlton-crescent, Southampton.

3rd (£50): S. C. Hurst, L.R.I.B.A., P.A.S.I., 31, Kersley-street, London, S.W.11.

Forty designs were submitted, and the whole will be on exhibition for a period of six days from December 2—7, at the Town Hall, Havant.

BUILDING CONGRESS

PROBLEMS FACING THE INDUSTRY

THE third Building Congress organised by Building Industries National Council opened at Central Hall, Westminster, on November 19, under the chairmanship of the President, Mr. F. W. Purse, M.I.E.E., M.I.Mech.E.

The Congress was opened by the Minister of Works (MR. GEORGE TOMLINSON, M.P.), who said that by the end of this year, apart from aluminium temporary houses, the temporary housing programme should largely be complete. It was hoped that production generally of housing components and fitments for which the Ministry of Supply was responsible would have reached, and in many cases surpassed, pre-war level by the end of the year. At the beginning of 1946 the building materials industries had rather less than half their pre-war labour force, and in total they were producing less than half their pre-war production. Such industries as asbestos cement, plaster board and glass had been kept up to something like their pre-war strength, and at the end of last year their production approached pre-war level. In the first nine months of this year the net increase in the labour available to all building materials industries was over 50 per cent., the actual figure being 52,834, and out of the gross total in employment at the end of September last there were roughly 8,000 German prisoners. Shortages were hampering production, and would do so for a long time. In spite of the very large increase in coal consumption by the building materials industries during 1946, the increased demand had been met, but future production in those industries would depend largely upon the fuel supplies which would be available during the winter and afterwards.

The Minister then dealt in detail with the output of the various industries connected with building, and said that what had been done by all concerned with the production of bricks in the past 12 months had been little short of a miracle. In conclusion he said that the building materials producers, employers, workers and trade associations had extended at all times the maximum measure of co-operation, and he thanked them for what they were doing to increase the output of building materials and components.

Discussion.

MR. L. H. KEAY, P.R.I.B.A., said that the production of materials had not kept pace with the expanding labour force; building costs had reached the limit which taxpayers and ratepayers could afford and would have to be reduced. He suggested that those in charge of housing schemes should have more freedom to make decisions on the spot.

MR. LESLIE WALLIS, past-president, B.I.N.C., asked that there should be a removal of controls at the earliest possible moment, and said that the industry's real difficulty was that they had far too much work on hand for the amount of labour and material available.

In reply to this criticism MR. TOMLINSON said he agreed with much that had been said, but the position of the building industry during the past 18 months had been similar to that of our great war industries in 1940 and 1941. He believed that the time for controls to go would be when there were sufficient essential supplies to go round.

MR. M. G. IONIDES, secretary of the National Council of Building Material Producers, said there were shortages of timber, lead and linseed oil which affected the industry directly, but these appeared likely to be put in the shade by a crisis in the fuel and power industries. He emphasised the need for the building industry to be taken into the confidence of the Government in regard to future planning.

SIR DUDLEY PRYKE said that 46 per cent. of the industry was now engaged on work other than that of building new houses.

He summed up by saying that the producing side of the building industry was now in the position that unless it was held back by shortages of raw materials, fuel and power, and other factors over which it had no control, it was in sight of the end of the struggle for production. "We are beginning to enter another phase, a struggle for stability and balance. The factors to be reckoned with are much less obvious, much harder to diagnose and assess, but none the less potent in their practical effects on the health of the industry and everyone in it, and of the community. This phase will be a very real test of State planning. The industry is ready, as it always has been, to give the fullest co-operation to further anything that is good and useful in State planning. It is ready to give every effort in the search for an optimum mixture of over-all supervision with the fullest freedom for initiative and enterprise in the industry."

The Second Session

The subject of the Tuesday afternoon's discussion was "The Place of Traditional and New Forms of Construction."

MR. W. H. ANSELL, P-P.R.I.B.A., said that the building industry was frustrated, bewildered and disgruntled. They resented being over-controlled and the unfair and untrue criticism that they were indulging in black market practices. Tradition was not a slavish imitation of a bygone age; it meant adapting what had been proved to be good. At all costs our craft heritage must be preserved, and it was worth remembering that the use of local materials could make a considerable contribution to housing.

PROFESSOR J. D. BERNAL said that the scientific approach attempted to work out what are the *functions* of a house. For example, the function of a wall was (a) to support, (b) to keep out weather and keep in warmth. "Brick," continued the speaker, "is uneconomic; it has inferior thermal qualities, and is wasteful of labour in construction. The shortage of heavy materials—brick and cement—is likely to be permanent because of the coal situation." It was not the aim to scrap traditional methods; that would be wasting past experience and valuable skilled manpower. At the moment more houses were being erected of prefabricated types than of traditional types, but when the present transitional period was over that would be reversed. New methods would only take off the "fringe."

MAJOR LEFEBURE (Chairman, B.I.N.C. Research Committee) said that B.I.N.C. had reviewed the whole field of research. Much had been undertaken by industry itself through research associations or by private firms, but there was a serious lack of basic data required for improving traditional building. B.I.N.C. was considering the need for industrial research organisation to tackle these problems.

MR. G. L. GREAVES, A.R.I.B.A., felt the building programme could be achieved by traditional means alone, and out of 40-50 new types he had examined for the Ministry of Works only six were satisfactory. "If the development of new types is to be encouraged," he said, "the Ministry of Health must appoint sympathetic officials and give some latitude in the initial stages on costs. The industry should get its own research organisation going as quickly as possible."

WING-COMMANDER YATES said that the Ministry of Works should let brickmakers know how many bricks were really wanted. There were too many conflicting statements at present.

MR. ALISTER MACDONALD (Chairman, Architectural Science Board) said that we should try to avoid an atmosphere of bickering between tradition and new methods. Whatever the number of men we could put on traditional methods we should still need prefabrication. We should try to achieve by both methods something worthy of the new age we were entering.

MR. A. C. BUNCH, F.R.I.B.A., said that tradition simply meant the accumulated experience of the building industry which had preserved the good and rejected the bad. If we threw over that experience for new and untried methods we did so at our peril. There was need for much more research, but it was not clear whether it would be better done by industry or by Government.

MR. ANSELL, in replying, denied that there was controversy between tradition and science, but emphasised that it would be wrong to throw away the experience of the past. "It is unfair," he said, "that prefabs should receive preferential treatment as regards modern kitchen and plumbing units; these should be equally available for both traditional and new building."

PROFESSOR BERNAL, who also replied, agreed with the remarks just made by Mr. Ansell. New methods, he said, need be no more ugly than the traditional—it all depended on the quality of the architects.

The Third Session

The third session on the Wednesday morning was opened by the Minister of Health, MR. ANEURIN BEVAN, M.P., who explained the difference between a target and a programme, and promised that in the near future he would do all he could to provide the industry with detailed and precise information so that builders might form an estimate of the situation.

He knew, he said, how irritating it had been for them to have to move blindly. The industry was now entitled to receive a clearer picture of its future prospects and he intended to invite the leaders of the industry to meet him and hear what the Government's programme was likely to be. It had been impossible for him in the first year to provide the industry with a target; but there was all the difference in the world between a target and a programme. The industry was entitled to expect from the Government an estimate of the flow of materials it could have in 1947, the number of houses it could build, and an estimate of the labour force that would be available. It would still be foolish to regard that as a target, because there were a number of things which were still doubtful.

Furthermore, the Government hoped to be able to produce at the end of each month, to accompany the monthly housing returns, a full statement of the production of building materials. In that way the Government would be able to answer those critics who suggested they were asking the industry to achieve something and did not provide them with the materials with which to do it. Having provided the industry with the materials.

the labour, and the contracts, it would be the responsibility of the builders to answer the critics. "To-day," said Mr. Bevan, "we are being judged by the numbers of houses we build; in ten years' time we shall be judged by the kind of house that is going up. We must preserve our standards and not be panicked into building something shoddy."

The supply of materials was nicely adjusted to the building programme, and much of the criticism which had been levelled against the Government was really due to the absence of discipline in the industry itself. That was part of the price we had to pay for liberty. There was something really obscene about the large number of people having their houses decorated at the expense of those who otherwise would be getting new houses. Much of this repair work was lucrative and evaded taxation.

In 1947 the Government's plans would be nugatory unless there was improved discipline in the industry. That was particularly the case in London, which presented a problem of the utmost complexity. The slow rate at which the building force in London was mobilising frightened him. The standards of morality of the builder would have to be a little higher, and he did earnestly hope the Government would have the co-operation of the industry in dealing with black marketeers.

Earlier Mr. Bevan had said that fewer than 5 per cent. of rural authorities had now not got houses under contract and local authorities in that category represented less than 2 per cent. of the housing programme. Throughout the country, from Cornwall to the north-east coast, there was building activity. Only in one or two instances were local authorities lagging. On the whole, the picture was satisfactory.

Discussion.

MR. HOWARD ROBERTSON, past-president, suggested it would save much delay if builders were to be told within less than three or four months whether they were going to receive a licence.

MR. G. W. GROSVENOR said that Mr. Bevan had given all the questions and provided all the answers. They welcomed the information they were going to be given in the future and the fact that Mr. Bevan was more conciliatory. There should, he believed, be more flexibility in the programme and more fluidity in the provision of materials. There would have to be a steady flow of timber of the right, usable sizes. As a builder, he said, he would like to have a sufficient supply of materials to provide a "buyers' market." That, more than any other single factor, would reduce costs.

"One other thing is important. In the future we must preserve our craft traditions. We cannot turn out good craftsmen by housing work alone. It is important that a better class of work should progressively be released in order to train craftsmen."

SIR VALENTINE CRITTALL said he hoped control would be centralised. There should be a careful examination of new schemes which should not be drawn up without practical people being consulted.

Replying, Mr. Bevan said he hoped that construction of the Airey type of house would ease the housing problem in rural areas. He was a great believer in it. He added that while they were now being judged by the number of houses being built, in ten years' time they would be judged by the quality of those houses. He therefore urged builders not to be panicked into doing a shoddy job.

THE SCHOOLS PROGRAMME

MR. C. G. STILLMAN, F.R.I.B.A. (County Architect, Middlesex County Council), said that the Education Act of 1944 had introduced extensive new measures and reforms which could only be made effective by means of a very large volume of building work. Surveys of existing school premises were now in progress, and development plans already prepared gave a fair indication of the amount of work needed to comply with requirements. A rough approximation of the programme involved, as far as it was foreseeable at the moment, could be put at one thousand million pounds, and it would not be unreasonable to fix a maximum of 15 years for the completion of the programme. This meant an annual average expenditure of approximately seventy million pounds a year, which, at present costs, was roughly double the programme in 1938, when the greatest amount of capital expenditure ever approved in one year was reached. Annual maintenance is not included.

"The target of seventy million pounds is," said Mr. Stillman, "something like 10 per cent. of the total estimated output of the building force when the industry is again working at full pressure. The period aimed at of 15 years will depend upon the long-term availability of materials and labour, plus the degree of skill, inventiveness and power of organisation we are able to give to it. Its practicability will depend perhaps even more upon whether, with all the other demands on building, a percentage allocation of this nature can be, and will be, granted to education during the next 15 years."

For that programme we wanted to know *at once* the position regarding materials, and education authorities were experiencing great difficulty in obtaining information. The present uncertainty was holding up design very seriously.

On the question of huts Mr. Stillman said that these were acknowledged to be of sub-standard design and do not make suitable classrooms. The many thousands being erected, at the expense of precious labour and material, must be pulled down and replaced within a few years, making this a most unfortunate and costly expedient. If we could not replace these huts at an early date we should merely add to the problem by increasing rather than decreasing the long list of unsatisfactory school buildings. At the same time, we could not afford to make designs based upon materials that were unobtainable and sit back and wait until these materials became available.

"We must make designs according to the facilities dictated by conditions as they exist, and I firmly believe (said Mr. Stillman) that a new functional approach is highly desirable. We require light structure for a number of good reasons. Not merely for reasons of expediency, not primarily for reasons of speed, although we want speed; not necessarily because light construction is thought to be cheaper, and certainly not for the mistaken idea that light construction is so much less permanent. We need light-framed structures because we want to construct schools in a manner that will allow freedom for progressive development, change and alteration. Lightness of design is more suitable in character and style for places devoted to the upbringing of young children. We are not building architectural monuments, and whilst we do not believe in temporary buildings, we do not require the great permanence of the monumental structure.

"It may be necessary in the first instance to postpone the full standard requirements, but in accepting sub-standard finishes we should make sure that the main framework of the design will enable later improvements to be made so that ultimately the regulation standard can be obtained.

"Fluctuations in supplies may also mean a flexibility in the structural design to allow for adaptations to be made quickly. The preparation of design takes time—especially where experimental methods are involved, where 'mock-ups,' or prototypes, are necessary. By the time this work has been done the situation may have changed regarding the supply of material upon which the design has been based. There are practical limits, however, to interchangeability, and prefabrication to be fully effective must depend to a large extent upon long-term availability of material and market stability.

"Since we cannot be dictatorial about methods and materials, we cannot be dictatorial about architectural style. We must expect austerity and we must expect control. Like London traffic, we recognise the need for control, but, like the London traffic, we expect the control to be carried out efficiently."

The Fourth Session

The fourth and final session was devoted to a consideration of "The Future Relations of Government with the Building Industries."

MR. S. F. S. HEARDER (Director, N.F.B.T.E.) said that this important subject had been touched on sufficiently during the earlier discussions to show that there was no opposition to consultation between the Government and the building industries. Consultation was only the first stage, and he suggested that the aim of all concerned at that stage should be to create mutual confidence and so pave the way for willing and therefore really effective co-operation. He stressed the word "willing," because co-operation under threats could never be effective. If consultation was to create confidence, the atmosphere must be right, and to get the right atmosphere we must face the fact that we were living in a highly political world. Unless we did so we should not get very far. If the atmosphere was wrong the most perfect machinery could not function efficiently.

As regards machinery, Mr. Tomlinson, in his opening address, had said that the industry had asked for consultation at the right level and at the right time. As he (the speaker) understood it, the right level seemed to be the Minister and the right time appeared to be always. As regards the latter, the extent and frequency of consultation would depend on circumstances, but it seemed clear that with a policy of full employment and with a big subsidised housing programme, there must be more consultation for many years to come than there was in the years before the war. On the other hand, as the supply of materials increased and the number of controls diminished, the number of problems requiring consultation would be reduced.

"As regards level," said Mr. Hearder, "we must remember that Ministers are overworked servants of the State. I, personally, have always thought that the best way of advising Ministers is to bring their advisers to the right way of thinking. I suggest, therefore, that to be effective consultations must take place first with the advisers, and later, perhaps, with the Ministers, but in any event long before the decision stage is reached. This gives all parties every opportunity of appreciating the difficulties of the others, and enables discussions to be much more free and frank than they could be in the course of later

and more formal consultation. Incidentally, informal discussions enable those taking part really to get to know one another. But for them, how would leaders of Federations like mine interpret to their members such different personalities as Mr. George Tomlinson and Mr. Aneurin Bevan?

"After the informal discussions come the more formal discussions, which, under the present machinery, take place at committees or councils set up by Ministers themselves. From the builders' point of view I think the present machine of the National Consultative Council of the Building and Civil Engineering Industries, with the Minister in the chair, and the Building and Civil Engineering Joint Committee under the chairmanship of the Parliamentary Secretary, with its Regional counterparts under the chairmanship of the Regional Directors, is working fairly well. Thanks to the frankness of the discussions on these bodies, the atmosphere has improved during the last year, and continues to improve. And here may I say how much Ministers themselves have done to create a feeling of confidence? Much good has been done by Mr. Aneurin Bevan meeting the full Council of my Federation and by Mr. Tomlinson addressing the National Joint Production Council and the newly appointed Production Officers.

"Whilst this machinery should probably be applied to most of the field, first things should come first. I join my old friend Mr. Keay in deprecating the present-day tendency to try to solve all our problems—and they are many and difficult—at once. And I deprecate the growing tendency to regard the building industry as old-fashioned and slow-moving, and to assume that the Government have only to stimulate it on any particular problem for that problem, however difficult, to be quickly solved."

Up to the present the "No. 1" post-war problem had been the lack of materials. Soon the No. 1 problem would be how to get increased output on the site. Both the building trades employers and their friends the operatives realised that that was not only a vital but a most urgent problem. It was from those aspects that both sides had been working on it, and working hard, for many months. And there had been, and would continue to be, close co-operation with the Government. They, at any rate, appreciated the difficulties and had not complained.

"The earlier discussions at this Congress have shown the adverse effects on output on the site of materials shortages. Such shortages make it almost impossible for the employer, however efficient, to organise properly, and they also discourage operatives. I submit that if a payment by results scheme had been tried out during the period of shortage, it would not have had a fair chance, it would have been a failure, and it would therefore have done more harm than good."

Sound Fundamental Rules.

MR. W. H. PILKINGTON said that for the successful operation of such a large enterprise as the national building programme, certain simple fundamental rules had to be observed. Responsibility for carrying out the separate parts of the plan must be delegated, and that delegation must be accompanied by explicit and full terms of reference and information which must be kept up to date. Second, the authority delegated must match the responsibility; and third, the operation of the responsibility and authority so delegated must still be subject to supervision by the Government, who in the last resort had to be satisfied that the work was being done.

"This delegation of responsibility and authority is specially important," said the speaker, "since in modern industry, management, whether in small firms or large, is by its nature highly technological, and may easily be damaged by non-technological direction in detail. If, then, in the future, the present stage of overall control, supplemented by many detailed controls, is to give way to one of overall planning and subsequent supervision, then the Government must still keep itself fully informed, as without adequate knowledge it can neither supervise nor take informed decisions. This means that the Government must continue to collect and study statistics of production, and of the factors which govern it, and should relate these to the corresponding statistics of building output and future building needs."

But that was only one side of the future relationship between the Government and Industry. To get the best results in the future, industry had itself got to take far more advantage of the exceptional services and facilities that the Government could offer, than it did in 1939. The Government had a mass of information and statistics on all subjects, far more than before the war, and with a body of civil servants far better versed in industry's peculiarities and needs, and was in a position to give assistance on request from industry on many problems, for example, the securing of raw materials or labour, the protection against unfair competition from overseas, the modification of byelaws or standard specifications, the provision of research data or testing facilities, and, above all, statistical information. Industry, like the Government, could only operate intelligently if its intelligence was up to date, accurate and comprehensive. In the future partnership of Government and Industry, Industry must make the Government into its servant, and must use the Government to obtain its information and its assistance.

SUMMING-UP
By Sir Thomas Bennett

This afternoon's session (said Sir Thomas) was to have been dealt with by the Parliamentary Secretary of the Ministry of works, and in that case he would have been able to tell you the view of the Principal Building Departments of the State. Unfortunately, Mr. Wilson is unable to be here, and I am, therefore, compelled to deal with the Building Industry and Government Departments the reverse way round, and to discuss some of the serious points which arise when a nation-wide industry of this kind is taken under the control of the State.

1. THE BUILDING INDUSTRY STRUCTURE.—In order to understand this problem I think it is essential to endeavour to state as definitely as possible the basic structure of the building industry, because this has tended to become obscured as the result of concentration upon certain aspects of its work.

The building industry in Great Britain consisted before the war of approximately one million operatives, distributed throughout every town and village in the land. It was carried on by master builders varying from some 30,000, who employed no operatives at all, up to a mere handful who employed some 10,000 operatives each. It is quite clear that in a structure of this kind the nature of the individual varies enormously; his training, outlook, capacity and measure of ability are extremely varied, and yet the nation used all these employers and employees in some part of the building necessities of Great Britain.

2. NATURE OF THE WORK UNDERTAKEN.—The first broad sub-division is that indicated by the nature of the work undertaken by sections of the industry. Some 300,000 men were permanently engaged in the day-to-day maintenance and repair of the nation's buildings. These firms, and the workmen they employed, were distributed throughout the country in accordance with local needs; they were locally resident, and were usually members of small firms, very closely integrated, having long-standing loyalties to each other, and working well only so long as they were left within their strictly limited sphere to carry out the work which they had grown up to regard as their own. The men, as a rule, were almost personal friends of their employers, they were very loath to leave one employer for another, and often worked for the same firm for the whole of their working life. The workmen were sometimes highly skilled craftsmen and sometimes were men who could do diverse operations sufficiently well for the limited nature of the work. Thus a bricklayer in a country district would do simple brickwork such as that of building a copper, knocking a hole in a brick wall, putting in a fresh window, tiling a roof, or making good the plastering to rooms when that stage was reached. I believe it is wrong to regard this proportion of the building industry as "house builders." In most cases when they are presented with the conditions of a building contract they are out of their element, they cannot operate successfully in these conditions, and the supporting organisation is generally missing—that is to say, there is no well-established buying channel, frequently the finance is of a restricted order, and causes difficulty, and in very many cases the operations involved in bringing large quantities of different kinds of materials together on a building site is quite outside the experience either of foremen, builders or managers.

I believe it would be well to regard this section of the industry as only employed efficiently and to great advantage if it is left to carry out its own type of work. During the war many such firms were broken up of necessity by direction, the men were sent all over the country. In many cases they have gone back to their old habits, their old localities, their old work. They have an immense amount of work in front of them, and although, at times, it is the custom to say that the small licence job which they do is diverting attention and labour from housing, I do not believe that anything of the kind happens on a large scale.

3. OTHER BUILDING FIRMS.—The next group of builders is that of the average-sized building firm of the town, the country districts, or of London. Here again, in the great majority of cases, the firms, if they are good employers, have a large nucleus of men who always work for them, who work best within an organisation they like, under foremen they respect and under conditions with which they are familiar, leaving possibly not more than one-third of the industry who are, strictly speaking, mobile.

I have seen no attempt on the part of the Ministry of Labour to separate men into these precise categories, but this is my experience as the result of studying the movement of labour, and its use, in the war years when I was Director of Works.

4. THE ORGANISATION OF THE BUILDING CONTRACTS.—It must also be remembered that as soon as a building contract reaches any size, *i.e.*, at a very early stage in terms of money, the building contract needs a large number of subsidiary people

in order that it may operate. These consist of the person, company or local authority who require buildings, and state their requirements; the architect, engineers, surveyors and master builder, who together survey the land, design the buildings, design the mechanical equipment, and arrange for execution. In peace time a surprising number of these members of the industry work together in groups. You would find that the local authorities had their own groups of builders or quantity surveyors whom they constantly employed. Private architects worked normally in London with the same quantity surveyor, with the same consulting engineers, and generally speaking with a relatively small group of builders. In all these associations of persons there was a very large element of personal contact and adjustment, and the individuals knew each other, knew their strength and weakness, and formed an efficient machine, only so long as they worked together. This group working is, I believe, an essential of the efficient organisation of the building industry. There is just the same integration in building as there is in the more stable and established factory industries, although in the latter case it is much easier to see. There is the same difference in building in the type of firm, the type of operatives and everything else that there is in, say, the motor-car industry, varying from its small one-man repair shop in the country, to the large firms of Morris and Rolls, and there is just the same difference in the skill, management and requirements of the building firms as there is in the skill and organisation of the men who handle motor-cars. It is equally difficult to get one section of the organisation to operate efficiently on work of a totally different character. I believe a somewhat similar parallel is found in ship building. There is the same difference between the men who repair rowing boats on the river and John Brown, who builds liners or battleships on the Clyde.

I have stressed this organisation because I think it has tended to be overlooked entirely in the last year or two, and as a result a great many of the ills of the industry are attributed to individuals, whereas they are really the result of ministerial ignorance of the industry.

Long-term Planning.

5. Long-term Planning.—Few people outside the building industry recognise the long time which it takes to bring substantial projects into the building contract stage and finally to completion and occupation. In peace time it was quite usual for schemes of size to take from one to two years from first to last, and a very large number of them took much longer. Therefore, in laying down any scheme for the Government control or direction of the industry, it must be realised that planning has to start a long time before the results of that planning are required or will be visible, and that it is clear that vitally urgent as housing is at the present moment, there must come a time at which other types of buildings must be built. The organisation of the industry should be such that it is ready to build any kind of building.

It is notable that in dealing with Warsaw, one of the worst bombed towns in Europe, the Council of Warsaw found that it was essential at an extremely early stage to build a certain amount of office accommodation, a certain number of shops and other buildings, even in advance of the building of houses, and I am certain it will be found, indeed it is already found in this country, that different classes of buildings must, to some extent, be produced concurrently with housing. Therefore, the Government Departments charged with the supervision of so great an organisation (the Ministry of Works) will, I believe, be serving the public interest if, at this stage, it visualises the ramifications and proper functions of an industry which employs more people than any other industry in the country.

Town Planning Implementation.

7. Town Planning.—The commencement, therefore, of rapid building on a large scale is town planning. There is at present far too much uncertainty about the town plans of all areas. In many cases there are no schemes at all; in other cases concrete schemes are produced but have not been given the sanction of authority, or the certainty of application, and they are at present casting a dead hand over large areas of urgent buildings for which no preparation can commence at all.

Unfortunately, in certain cases they have become the subject of political discussion where they ought only to be the basis of practical development, and proper relationship between all the people who will use the area when it is finally town planned and developed. I think, therefore, the first thing the building industry needs from the Government Department is an increased measure of decision with regard to the town plan, and an immediate and definite decision with regard to town plan implementation.

8. Control and Supervision.—To secure the proper measure of co-ordination of work, Departments have felt that they must institute control. Controls need people to operate them, and the people who operate them must have a very extensive knowledge of the detail of the work they are supervising and the effect of their actions. In the case of practical things like timber and bricks, the operation is to a very large extent straightforward. There is little room for real difference of opinion. The objective is so clearly defined (the production and use of more timber, or more bricks) that the possibilities of variations of an individual kind are much less than they are in the design of buildings.

In the design of buildings we must start with the architect. The architect, if he is worth his salt, is always thinking about the best method of design, he has quite definite ideas of the way to achieve a result. In detail, aims vary very substantially as between architect and architect; the result to the layman may not seem to be very different, but in practice it means a very large amount of argument and change, and change is disastrous to progress.

Authorities for examining housing and other schemes, as they are at present operated, mean that one technical man is imposed upon another technical man in the great majority of cases, and sometimes there are three or more technical men each of whom has the voice of authority to decide the way in which the buildings shall be finally designed. Since the design must of necessity be made by one and criticised by the other, this is resulting in the remaking of a very large number of schemes.

In my view, the control of design should be operated in a very different manner. The Ministry of Health, as the main housing authority of the country, should issue precise instructions as to their requirements in areas of rooms, total expenditure possibly (although this varies tremendously in different parts of the country), method or amount of equipment, and so on. Having issued these very definite instructions, the local authorities should be trusted to carry them out, and find their own technical staff to design them, whether that be by means of salaried architects, or by means of commissions to architects in practice, or both.

It is possible, if supervision of the very close technical kind at present induced were eliminated, that some houses would be built which were not quite so good as some other houses. This probably happens in any case. Most local authorities are very conscious of their responsibilities; they are practically all sensible enough to employ proper technical advice, and if there were any doubt on this point it should be an instruction of the Ministry that they are bound to employ technical advice of a proper character, and with men of proper standing.

Having once accepted this direction, they should be left to proceed with the work without supervision of detail. If they transgressed in the sizes of rooms or in the lavish or undue expenditure of money beyond the standard laid down by the central authority, there are plenty of sanctions which would stop repetition and probably prevent any such thing from happening, but I am certain that a great deal of frustration, delay and irritation which is being caused at present would disappear.

I think that much greater progress would be made if the Regional Offices of the Ministry of Health were eliminated entirely and the Ministry reverted to its former good balance of control and freedom by working directly with Whitehall and the local authorities. It must be borne in mind that the staff of the present housing drive was able to use a very large number of drawings prepared in 1939 but not fully carried out, and therefore for a time there appear to be an ample supply of schemes. When some of the shortages of materials have been overcome, and the initial delay in recruiting labour has become a thing of the past, it may very well be found that drawings on a sufficient scale are not in readiness to start, and we may be driven to that worst of all disasters in building: commencement of contracts with inadequate information and insufficient drawings.

Time-Lag on Instructions.

9. Length of Time for Instructions to Become Operative.—One of the speakers on the first day of this conference drew attention to the fact that one instruction can at times overtake another instruction of an entirely negative and different character. Two notices would arrive simultaneously, one to the effect that the scheme could only proceed if brickwork were eliminated, and the other demanding the immediate removal of bricks because the brickfields of the North were choked. This is almost inevitable when large machines like the building industry are controlled too tightly. Moreover, it has been found that any instruction issued by a Government Department takes a very considerable amount of time to travel from the heads who issue it in Whitehall to the relatively minor officials who in practice must administer its execution.

In addition to this, the local conditions of building vary very substantially, much more substantially in England than in any large country in the world, and because the time-honoured tradition of building has been developed in each district, and has got its own exponents, its own local conditions and its own limitations, what is a perfectly good instruction in Kent may be a perfectly bad instruction in Cumberland, and it is hardly possible to frame detailed instructions so that they give the greatest power to use local materials with

the greatest efficiency and to adjust them to local requirements. In the war time, when a certain amount of this was inevitable, I have seen broken stone specified in Nottinghamshire used as hardcore for the floors of temporary buildings which were next door to the tip from a colliery. Colliery waste was a quarter the price and three times as easy to lay. Therefore I think that every aspect of this subject shows that present tight control—checking and rechecking of the design and checking and rechecking of the local authority—is not only causing serious loss of time but is completely choking the machine.

10. BUILDING MATERIALS.—The Minister of Works stated on the opening day that there were divisions in the control of building materials; broadly speaking, the heavy materials were under the control of the Ministry of Works and fitments under the control of the Ministry of Supply. Timber, of course, is under the control of the Board of Trade.

One of the difficulties of materials control, so far as the building industry is concerned, is that a very large number of its major materials have purposes entirely unconnected with building. Timber, for example, is used for railway sleepers, packing-case making, furniture, and a very large number of other purposes. The building industry also uses small quantities of materials which are a long way removed from building. A small amount of cotton is required to braid cables, and any simple collection of materials controlled under one Ministry is fraught with difficulties. Nevertheless, materials and other controls, which are operated by the Government, undoubtedly work very much better when only one Ministry has to be dealt with instead of two or three, and I consider that building material controls should be re-examined to see whether simplification would not result if more materials were placed under one Ministry, and, as far as possible, the whole of the major requirements of building were under the control of the Ministry of Works.

There have been cases where the division of control has resulted in some discussion as to which Department really controls the finished article, and in one case there was quite a large amount of dispute, ending in neither Department wishing to take control of a vital product.

The Operation of the Building Contract.

11. BUILDING, TENDERING AND OPERATION OF THE CONTRACT.—Coming down from generalisations connected with the production of the drawings and the materials to the operation of the building contract, this is another factor which is far from being on a satisfactory basis. There is a tradition in the local authority organisation that every builder in a town or district is entitled to send in a tender if he so wishes. Open tendering of this kind is the negation of efficiency. In the first instance it means that possibly 15, 20 or even more building firms are asked to price schedules and submit a tender at a time when manpower is extremely difficult, especially skilled manpower of the kind required for pricing bills, and only one out of these 15 or 20 firms can hope to get the contract. It would be far better if the principle of open tendering were abandoned and the principle of advertising contracts for permission to be allowed to tender was substituted. From the list of builders applying, not more than a suitable number should be selected for each contract, and care should be taken on the part of the technical advisers that the firms are all of approximately equal standing.

It is clear that failure to do this results in putting too high a value on the lowest tender, irrespective of the standard of workmanship or the standard of organisation.

Poor organisation may well end in the building costing far more than the amount indicated by a higher but more honest tender. In the pre-war days almost every group of people concerned with building gradually acquired a list of contractors in whom they had confidence, and I am certain that it is only justice to the industry on the one hand to prevent the excessive waste of the open tender, and on the other hand to endeavour to get firms to reach a proper standard of building by finding that they will be asked again if they produce a satisfactory building contract.

12. ORGANISATION OF THE CONTRACT.—Mr. Wallis stated that a builder in pre-war days, as soon as he received his contract, immediately ordered all his main materials and arranged for times of delivery. Mr. Wallis is, of course, speaking from his own experience. I think this is true of his firm; if I may say so, it is also true of a percentage of the firms in the industry, but it was by no means true of a very large number of firms and it is not true to-day. The organisation of building contracts, in a percentage of contractors throughout the country, is at a very high level. The organisation of other contracts is at a very much lower level, and the danger of conditions in which the Ministry of Works have licensed some 81,000 builders who have never been employers before, and in which open tendering may result in the possibility of having an extremely bad organisation running an important housing or other contract, is very real.

I think it is essential that the building industry as a whole should endeavour to see that its own members have a very high standard of organisation, but it is also necessary that that organisation is paid for, and therefore tenders of a reasonable amount must include a sum for the cost of this organisation. Without it the men, however willing to work, cannot give first-class output, and they get disheartened because it is quite impossible to work well under poor organisation. Conversely, I have found that a first-class organisation almost invariably produces good work on the part of the men. In fact, at one time I found that if an agent told me that the labour was poor and giving a rotten output, I would have much the same opinion of the organisation; and if an agent told me that the men were doing their best, I found that the organisation was at a high level.

Therefore, if this was true in peace-time—when any lack of organisation could be quickly remedied by purchase and immediate delivery of a surplus of goods, by application to the Labour Exchange, and the receipt of men waiting for employment—it is vital to-day when goods are short and there is no unemployment worth talking about.

Payment by Results.

13. OUTPUT AND PAYMENT BY RESULTS.—I was at one time very much opposed to "Payment by Results." The wartime scheme left much to be desired, but I think the time has come when payment by results should be re-examined, and very serious efforts should be made by the Departments concerned to hammer out a scheme with the employers and the operatives which would give the men some monetary incentive, as well as a moral incentive, to produce well and to be paid as a result of that production.

14. THE MASS PRODUCTION OF HOUSE TYPES.—I think a word is also needed for Government consideration of the mass production of a large scale of houses in factories. I share Mr. Tomlinson's view that the temporary house, as we know it to-day, has filled a position for the first eighteen months or two years of the post-war period, which would have been a complete blank if it had had to rely upon traditional housing. To this extent the scheme in principle was sound; it has achieved results and provided homes, and nothing else in this period could have done either.

As the building industry gets into its stride, it is open to great doubt as to whether large-scale schemes are any longer of real value. There are only, and can be only, a certain number of the essential components which are required for any type of house. There must be baths, w.c.'s, sinks, cupboards, gas or electric stoves, and so on; and therefore every time that a house of an unsuitable character is built it has to wait for these components to arrive. It is also extremely difficult, if not impossible, in large-scale mass production to prevent the locking-up of large amounts of materials which are waiting for the remaining components, and during this period material is not available for other purposes. In fact, the mass production of semi-permanent houses does cause a very serious lag in the period of time between the making of the component and the use of the building.

It is very questionable whether we can at this stage afford such a time lag. Examination of some of the materials used in buildings of this kind have shown that the result of building "X" numbers of steel houses may well be merely to cause serious delay in obtaining steel for other equally or even more vital purposes. Therefore, I think that more consideration should be given by those responsible for placing these large contracts before any such contracts are extended. Apart altogether from the materials absorbed, they involve problems of transport and storage which are very large and extremely serious, and only close contact with this problem can show how large and serious they can be.

This country is geared in principle to local production, and little is gained by mass production of house units in factories.

To my mind there is far too much control in detail spread over far too many Departments, and this multiplicity of control of Ministry upon Ministry, and technician checking technician is prevent the industry from giving the country proper output and seriously damaging its whole efficiency.

The Late Mr. J. L. Lythgoe.

We regret to report the death of Mr. J. L. Lythgoe, who has been a director of Messrs. Nicholls & Clarke, Ltd., for 46 years. Mr. Lythgoe, who died on November 14, was 86, and had served the company for 54 years.

Restricted Materials.

The Board of Trade announce that the following additions to the "Restricted Material" list are being published in the London, Edinburgh and Belfast *Gazettes*: Douglas Fir, all clear grades; Western Hemlock or Balsam, all clear grades; Western Red Cedar, Ukay clear; Silver Spruce (Sitka Spruce), all clear grades and all aero grades; Russian Redwood, all I, II, III and unsorted; Swedish Redwood, Royal Swedish Forestry production, marked Crown Royal Crown, and unsorted of Cefle, Söderhamn, Hudiksvall or Sundsvall district productions; Finnish Redwood, unsorted of first class productions.

This means that a Special Release will have to be secured from the appropriate Timber Control Area Officer before T.C. 3/8/CPL licences for these materials after the date of the notice can operate.

PRODUCTION OF HOUSING FITMENTS

STATEMENT BY MINISTER OF SUPPLY

ENCOURAGING facts and figures relating to the production of fitments for houses were given by the Rt. Hon. John Wilmot, Minister of Supply, when he addressed a Press conference in London on Thursday, November 14.

MR. WILMOT, whose remarks referred only to the items of housing equipment for which his Ministry was responsible, began by saying that the conference coincided with the completion of the 10,000th aluminium house, and continued :—

"I would liken the production of housing fitments to an operation of war and I am extremely glad to be able to report satisfactory progress in our advance. Although my Ministry is responsible for satisfying the demand for fitments both for the temporary house and the traditional type I am separating these two commitments for the moment. Apart from a few items—and these will soon be cleared up—we have supplied enough fitments for the whole of the Government's Temporary Housing scheme.

"Since October, 1945, when the Ministry of Supply was given the responsibility for the production of housing fitments for temporary and permanent houses, I have always regarded this activity as an urgent operation. As well as being urgent it has been, and sometimes still is, a complicated operation. The change-over from war production to peace production is a vast and complicated task and you have only to remember the difficulties besetting those conducting the switch-over in the reverse direction during the first half of the war to understand that many of these difficulties still remain. Indeed, certain new difficulties arise. Two of the main ones are that, firstly, we have not got the power to direct labour and, secondly, some of the main materials out of which housing fitments are made are very scarce. Another big difficulty we have had to cope with is the fact that many of the manufacturers concerned were engaged throughout the war on munition work of a type not amenable to an easy turn-over to civil requirements.

"When we first tackled the housing fitments task we found ourselves in the position in which the Army has often found itself when entrusted with an urgent operation. It was far from obvious just where and how exactly the operation should start. There was only one thing to do—and that was to improvise, to get things moving somewhere, somehow. We had no time to lose. Fortunately we received wholehearted support from workers and managements throughout the country. Without their co-operation we should not have been able to meet our commitments —and I should not be so happy about the whole question of housing fitments. I would like to remind you at this stage of the target announced by Mr. Aneurin Bevan, the Minister of Health, two months ago. Mr. Bevan's target was a roof by Christmas for every house whose walls had reached roof level. The efforts of my Ministry combined with the skill and the ingenuity of the men in the housing fitments industry are playing a decisive part in Mr. Bevan's 'Finish the Houses' campaign.

"Production over the whole field in housing fitments is steadily increasing and in several instances we have reached or surpassed the pre-war level of production. I will draw your attention to a few examples. The monthly production figures in 1938 for electric fires were 113,000; the 1946 monthly figures are 206,000; 12,500 gas water-heaters were produced monthly in 1938; 27,000 is the present figure. Immersion heaters have jumped from 9,000 to 39,000 and electric wash-boilers from 5,000 to 19,000. In this connection I would like to draw your attention to the fact that my Ministry has arranged to publish production figures of a representative selection of items in the Central Statistical Office's Digest of Statistics and the Ministry of Health's Housing Return.

"In the production of fitments for the traditional house some items such as stoves and castings generally are still in tight supply. The reason for this is the existence of certain bottle-necks of which labour is the chief. This general shortage of labour affects not only the fitments themselves but also the materials used in their manufacture. Some trades engaged extensively on housing components such as the manufacture of electrical porcelain and refractories for household appliances and accessories—as in Staffordshire—ceased to exist during the war and we are still suffering from the result.

"To alleviate the ceramics position the Royal Ordnance Factory at Swynnerton has started production. The R.O.F. at Poole is on the verge of starting and two others—at Glascoed and Cardiff—will be joining them shortly. Meanwhile all the manufacturers in the ceramics industry are planning by improving conditions to attract more workers.

"In widening production bottle-necks, foundry workers comprise our most urgent need. Without sufficient numbers of them we will not be able to carry out our commitments for the traditional house programme. In the sphere of the temporary house the dexterity of the workers, the substitution of available materials for those in short supply and invention played a big part but if we are to be equally

HOUSING FITMENTS AND COMPONENTS.
Output and Forecast of Production Capacity, 1946, and Expansion of Industry.

Item.	M.O.S. Production Figure January to September, 30, 1946, and forecast October to Dec., 1946.	Monthly Production. 1938.	1945.	1946.	Bottle-necks.	Standardisation. No. of Types. 1938.	1946.
Switches	9,851,357	1,500,000	500,000	951,000		150	50
Ceiling Roses	5,139,093	520,000	400,000	498,000	Porcelain	8	4
Switch fuses	6,809,151	215,000	200,000	973,000		8	6
Electric fires	1,883,120	113,000	43,000	206,000	Ceramic and nickel chrome wire	4	8
Electric cookers	160,761	25,000	3,000	13,000	Labour, ceramics and castings	50	25
Electric meters	980,592	100,000	10,000	99,600	Raw materials		
Electric wash boilers	191,070	5,000/6,000	3,000/4,000	19,000	Mica, copper sheet, nickel chrome wire	12	7
Immersion heaters	297,707	9,000	2,000	39,000	Ceramics, nickel chrome wire and tape (temporarily confined to 10 types	40	50
Gas wash-boilers	440,811	50,000	12,000	38,000	Castings, watercocks, copper sheet	15	20
Gas cookers	355,320	71,600	7,000	30,000	Foundry work	49	47
Gas water-heaters	246,880	12,500	7,000	27,000	Labour for chromium plating	68	88
Gas meters	784,270	70,000	37,000	79,000		5	5
Water waste preventers	566,408	60,000	31,000	50,000	Cistern shells ; wood, lead, labour	8	7
Taps	5,509,167	*	*	542,000	Labour	*	*
Stopcocks	2,528,320	Inf. shows that present output is 75% of 1938 production, being increased by 25% since Sept., 1945.		235,000			
Copper sheet (tons)	58,355	Output 10% above 1938.		4,700	Labour and copper	*	*
Copper pipe (tons)	30,728	*	Inf. shows slight increase over 1938.	2,300	Raw material and labour	*	*
Cold water cisterns and tanks	436,953	*	19,500	44,000	Galvanised sheet	*	*
Locks and latches	5,175,153	*	320,000	390,000	Labour in a few localities.	60	40
Door furniture	5,777,110	600,000	60,000	480,000	Moulding powder for plastics and labour in a few localities.	400	100
Fire grates, open	296,720	80,000	6,000	36,000	Foundry labour	1,000	750
Fire grates back to back with boiler		4,000	1,500	—	Foundry labour	100	80
Fire grates combination with boiler	114,476	8,000	4,000	8,000	Foundry labour	100	80
Soil pipes and fittings (tons)	19,878	3,500	350	1,500	Labour	80	50
Manhole covers and frames (tons)	35,025	*	*	3,145	Labour	70	30
Baths	269,001	28,000	8,000	21,000	Labour	20	6
Rainwater pipes and fittings (tons)	33,443	5,000	800	2,850	Labour	80	50

* Note : Figures not available.

successful with the traditional house we require more than these. We want more men—and we want them now. Early this month my Ministry and the Ministry of Labour in conjunction with the Central Office of Information launched a recruitment campaign for foundry labour and I believe the call will be answered. As Mr. William Leonard, one of my Joint Parliamentary Secretaries, has announced, I want ten thousand men for the light castings foundries and another ten thousand for engineering castings. Nobody knows better than I do that foundry work is not pleasant work but it is most important work. There can be no successful rehabilitation of the nation unless I get those twenty thousand men, and get them quickly. I appeal to the workers to give their services without delay and help the Government now with its vital plans of reconstruction for the country. Though it is not the Government's fault that working conditions in the foundries are far from ideal I shall keep my eye on them and do what I can to improve them.

"I would like to say a word or two now on some other steps we have taken and are taking to overcome bottle-necks in the fitments production.

"Special attention has been paid to the standardisation of components so as to obtain greater ease of assembly. Before the war, for instance, twenty different types of metal baths were being made. To-day production is being concentrated on six.

"At the beginning of the operation the question of alternative materials and methods was studied thoroughly. Where the normal material was scarce other alternatives were explored, tested and put into effect. This still continues.

"In the using of our own factories I am glad to say that industry in general has co-operated in helping them to get over their teething troubles.

"To the production of the aluminium house I have always accorded the same high priority as that given to the provision of housing fitments. Our aim is to produce 54,500 by the autumn of next year. To-morrow, I have great pleasure in announcing, Mr. Leonard is handing over an aluminium house to the Brighton Corporation which will be the 10,000th to come off the production line. There is no need for me to go into a description of the aluminium house, for its advantages and its qualities have already been well publicised. But what I do want to emphasise is that the production of this 10,000th house is an event of outstanding significance in our production drive. The over-all production figures at the present moment work out to no fewer than twelve completed houses leaving the factories every working hour. During the peak production period which we are now approaching we plan to have a house turned out every two and a half minutes. And there is no doubt about it that our plan is going to succeed. We are looking forward with keen anticipation to finishing the job.

"I shall close by emphasising once again that I regard both those production jobs—housing fitments and aluminium houses—as most urgent operations. I shall not be satisfied until the public's demand for fitments is satisfied by the supply and the 54,500th family settles down in its aluminium house. I shall do my best and I rely on the continued co-operation of all those doing such fine work in the industries concerned, and a generous response to my appeal to the workers to give us their support in the foundries. I am sure both will be forthcoming."

Figures were then given showing the increase in the production of various housing fitments in October this year over the corresponding figures for September, particular significance being attached to the output in October in view of it being the first month since the end of May or thereabouts that production had not been affected by holidays.

Details given were as follows :—

	Production.	
	Sept., 1946	*Oct.*, 1946
Electric cookers ..	13,321	23,306
Electric meters	99,600	127,151
Electric refrigerators (production only recently started) ..	488	7,013
Gas cookers	30,019	34,821
Gas meters	79,640	89,001
Baths	21,348 (cast-iron only)	30,960 (incl. 200 steel baths)
Most successful type of solid fuel grate ..	8,233	9,437
Rain water pipes, gutters (tons)	2,852 (aluminium and pressed together)	4,905 (pressed steel only. Aluminium figure not available)

The table on page 575, issued by the Ministry of Supply, records the expansion of industry in relation to the production of house fitments.

PRICE CONTROL
OF BUILDING MATERIALS AND COMPONENTS
M.O.W. STATEMENT

THE following statement has been issued by the Ministry of Works (H.M. Stationery Office, 1d.) :—

1. INTRODUCTORY—This statement was originally prepared in response to a request by the National Council of Building Material Producers for a description of price control procedure in the field of building materials and components. It is now published in view of its wider interest.

2. The statement deals only with the overall control of prices of building materials and components for the general market, in cases in which some further measure of control is necessary beyond that provided under the Prices of Goods Act. It does not deal with points of contract procedure which arise in negotiation of purchases on direct and indirect Government account or in the negotiation of production agreements.

3. OBJECT OF THE CONTROL—The general object of the Departments concerned with the price control of building materials and components is to ensure that prices shall be kept at a reasonable level during the period of scarcity and high demand, and that while, on the one hand, adequate production and distribution shall be secured, on the other hand manufacturers and distributors shall not make unreasonably high profits.

4. PROCEDURE—The Department select a number of producers in an industry for the examination of their costs over a representative period by the Departments' accountants. In the case of industries with a small number of producers, it may be possible to examine the costs of all the producers. Where this is not possible, a selection has to be made including both large and small producers. The results of the examination are, so far as possible, agreed with the producers concerned.

5. The results of the cost examination are used to calculate the average weighted costs of the industry as a whole with a view to fixing the price, preferably a maximum price.

6. Special cases exist where producers within an industry operate in circumstances so radically different from each other as to make comparison impossible. Examples of such cases are :—

(1) Where the product is the prime production of one maker and a by-product of another process by another maker;

(2) Where there is a very wide difference in the raw materials used or in the processes of manufacture followed by different producers.

In such cases the Department discuss with the industries concerned the best method of bringing unrepresentative costs into the overall picture, having regard, among other factors, to previous commercial practice.

7. A further special case is where a firm or an industry produces a large range of different types of product performing similar functions. The general principles set out in this statement apply broadly to such cases, but the special circumstances of each industry are considered in arriving at decisions on prices.

8. PROFITS—There is no fixed formula for settling the profit margin. The basis must vary from industry to industry since such factors as the ratio of capital employed to cost of production, risk and efficiency vary. The Departments also bear in mind previously established practice, particularly in those industries where in pre-war conditions competition was active; such pre-war practice cannot always be accepted, however, as appropriate in present conditions of widespread demand and shortage of supply.

9. In some industries the costs of producers may vary very widely and the fixing of a price which will cover the highest cost producer whose output is necessary may enable the low-cost producer to make unreasonably high profits. Four ways of dealing with this situation are :—

(*a*) A pooling system within the industry—this almost inevitably carries with it the necessity for a quota system;

(*b*) Government purchase of the whole output and resale at a fixed price—this applies to certain raw materials;

(*c*) A subsidy to high cost firms financed by a levy on all sales—this may increase the selling price of the product;

(*d*) The fixing of different prices for different producers—this involves difficulties of distribution unless the products of particular producers can be confined to particular areas. If this cannot be done, orders will tend to go to the low price producers to the

exclusion of the high price firms, with the consequent overloading of the low price producers.

10. All these methods have disadvantages, some of which are set out briefly above, and the Departments must adopt whichever seems best in the circumstances of the particular industry.

11. RELATIONS WITH ASSOCIATIONS—The Departments do not accept prices fixed by Associations. Cost must be ascertained, as set out above, by departmental examination of the accounts and other information obtained from individual producers. In many cases an Association does not cover the whole of an industry, and in these cases the Departments, when ascertaining overall costs, must take into account the costs of those producers outside the Association. Where producers outside an Association charge lower prices than the Association prices on account of particular factors such as low wages, sub-standard quality, inadequate provision for development or research, or a deliberate decision to sell at or below cost, their results are suitably discounted. The Departments do not regard the existence of low prices based on such factors as a reason for reducing prices below an economic level.

12. Subject to what has been said above, the Departments normally open negotiations on price matters with Associations, and consult with Associations as to representative producers from whom a selection for investigation can be made. In appropriate cases the Departments also consult the Associations before final decisions are made.

13. APPLICATIONS FOR PRICE INCREASES—The Departments recognise the need for dealing speedily with applications for price increases based on increases in costs. They cannot, however, agree that an increase in costs should automatically carry a corresponding increase in price; other factors, such as increasing output and the rate of profit, have to be taken into consideration and an application for a price increase may involve investigation of the accounts of the producers concerned.

IN PARLIAMENT

Housing Policy.

In the House of Lords, LORD LLEWELLIN called attention to the housing situation. He said that no one was really satisfied with the present position. Up to the end of September only 57,000 had been completed and there were only six months to go in which to complete nearly two-thirds of the original programme. In the last seven months only about 28,000 permanent houses had been completed, one-seventh of the Coalition's estimate of the houses which should be erected within two years after the defeat of Germany, and there seemed to be no hope of getting the other six-sevenths in the remaining months to May 7. Something had gone wrong with the distribution of material. In pre-war times 10 to 12 weeks were taken to build a house; now, he was told, it was taking nine to 12 months. There was great delay in getting material and the worst shortage was timber. German woodlands had only been cut to the extent of one-tenth of our own. Since we were paying large sums to feed Germany we ought at least to get back this essential commodity. Had the Government considered the question of an output bonus in the building trade? Such a bonus given to the men who laid more bricks than the average would mean that more houses would be built. He had heard that 17,100 pieces of paper had to be filled in for everything in a house before it could be built.

LORD QUIBELL said that the housing programme was being hampered and hindered at every turn, and one of the main causes was the shortage of timber. He had tried to overcome this shortage in his own district by the use of concrete beams for roofing, which dispensed altogether with timber. These beams had been proved dry and durable, and they could be used without altering the design of a house. He commended his solution to the Ministry of Works.

Lack of Building Productivity.

During the debate on the Address in the House of Commons, MR. MARPLES spoke about the lack of productivity in the building trade. He said that the only way of measuring the lack of productivity in a trade was to compare the costs as they ought to be at the present time with the costs which were incurred. He purposed to try and find out what the cost per superficial foot should be in 1946 for building, and to compare it with the actual price which was now being paid or which was tendered. If the price being paid was greater than it ought to be, then that was the measure of inefficiency in that particular trade. In 1938, the cost per superficial foot of building was 8s. 8d. To that must be added three known and ascertainable increases since that date. First, there was the increase in the standard of building, which amounted to 39.4 per cent. The standards now adopted were much better than in 1938. Therefore, to the figure of 8s. 8d. should be added 39.4 per cent., or approximately 3s. 4d., making a cost of 12s. The authority for all these figures was the Ministry of Health Report on Design of Dwellings. In addition, there was an increase in wages amounting to 72 per cent., and an increase in materials of 62 per cent., making an additional cost of 9s. per superficial foot with the 1938 figures. He had allowed 75 per cent. for those two items. He now arrived at a figure which really counted. The cost per superficial foot ought to be 21s. in 1946 if the efficiency in the industry was the same as in 1938. For a house of 856 ft., it would mean that the cost at 21s. per foot should be £900. In point of fact, the tender price was £1,200, which meant that at the minimum £300 was lost in efficiency; furthermore, the tender price was not necessarily the final figure. The final bill usually amounted to more than the tender price. At a rough estimate, the inefficiency in the building trade was not less than one-third.

MR. HAROLD DAVIES: Is the hon. Member implying that the increase of £300 was due solely to inefficiency, and was not due to shortages of supplies, such as the shortage of gypsum for plaster in some cases, and the possibility of groups getting together to force up prices?

MR. MARPLES: The increase of £300 is due to inefficiency and lack of productivity in the trade. The increase in the prices has been allowed for.

Continuing, MR. MARPLES said that the two main reasons for the lack of production were the maldistribution of materials, and secondly, the low output of labour. Until and unless they had payment by results universally applied throughout the industry, the Minister of Health would never solve his problem. The present wage-structure in the building industry was confused and chaotic.

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HOLIDAYS SCHEME MANAGEMENT

ANNUAL GENERAL MEETING

THE annual general meeting of the Building and Civil Engineering Holidays Scheme Management, Limited, was held at 82, New Cavendish-street, London, W., on November 6, to receive the directors' report and accounts.

Sir Frederick Leggett, C.B., the chairman, said that, before moving the adoption of the directors' report and accounts, he would like to make one or two observations. In the first place this was the first time in which the company had had two complete years of the scheme upon which comparisons could be made. It would be seen in the directors' report that there was an increase of 8,996 employers operating the scheme. This number was continuing to increase, and in the first six months of the current accounting period there was a further increase of 9,240. The number of registered employers was, of course, very high, and it was certain that an overwhelming majority of operatives were covered by the scheme.

Reference to the balance sheet showed that, apart from the forward purchasing of 2s. stamps, there was a considerable increase in the sale of 1s. 6d. stamps amounting to £409,076 18s. 6d. over the corresponding period last year. This increase in the sale of stamps was being maintained; in fact, during the present period it had further increased by about 60 per cent.

The income from investments had increased from £33,750 to £37,839 12s. 4d. The company sold their holding of 2½ per cent. National War Bonds at a profit of £11,420 13s. 1d., and reinvested the proceeds in 3 per cent. Savings Bonds. It was pointed out by the auditors that the profit could be used to enable the company to have a credit instead of a debit balance on the administration account.

No serious difficulties had been encountered in regard to reimbursements to employers, and payments were made as a rule within three days. The greatest difficulty, and greatest amount of work, had been caused by direct claims by operatives, and approximately one-seventh had made direct applications to the offices of the company. This and one or two other matters arising out of the agreement, on which, perhaps, the provisions in practice could be eased, were being considered by the Finance Committee. It was, of course, impossible to regard the scheme as other than in its earliest stages, and there had been so much passing of individuals in and out of the industry that it could be regarded as fortunate that the scheme had been working so efficiently.

One point that had occurred to the committee was that the holiday period during which a holiday could be taken might be lengthened, a change which would cause relief in administration. He referred to this because there had been a considerable amount of criticism of the office administration, and it was necessary to bear in mind the important fact that the company, quite properly, was bound by the terms of the agreement. The agreement, of course, had been tightly drafted in order to achieve its main objective, which was a holiday with pay provided by employers. It was not for the company to modify the terms of that agreement, but its main object would always be to administer it as sympathetically as possible. He hoped that those who might feel that the administration was open to criticism would look at the agreement and see if, in the light of its provisions, the action taken had been right or wrong. The company

had been in very great difficulty owing to the limited accommodation for its staff, and great credit was due to those who had worked so efficiently under such unfortunate conditions. Very serious consideration was being given to this subject in order to help matters next year.

He wished to say that to him it had been a very great honour to be associated with a scheme which exemplified so well the self-governing capacity of the organisations in the industries which it was so desirable to maintain in this country. It was so easy to allow all such functions to be transferred to Government, but the fact that the industries had kept their own scheme was of very great importance in maintaining our national and traditional self-governing system.

Coming from a department in which there was considerable experience of the ingenuity of human beings in obtaining money if such was available, he had wished to satisfy himself, on becoming chairman, as to the efficiency of the system of administration. With the general manager's agreement, therefore, he had asked a Ministry of Labour auditor to look into the administrative machinery. After careful investigation, this officer had spoken most highly of the machinery of administration of the company. Even so, its efficiency, of course, must always be greatly affected by the quality and standard of character of the employees, and he thought that the company was very fortunate in having a staff who were so loyal to the company's interests, and who had worked so well in the difficult circumstances of the past year.

At the last annual meeting the question of decentralising the scheme had been raised, and on that point also he had sought expert advice from one who had great knowledge of the working of a large decentralised machine. His report was wholly against any further decentralisation if it was desired to keep costs low and minimise the risk of loss. He had pointed out that this was already a very largely decentralised scheme, in that each employer is an agent. If the system was changed so that stamps were sold at various centres and sums of money were held at different points in the country for purposes of reimbursements, great complications would be caused, and the cost of administration, as well as risk of loss, would be greatly increased. The fact that, under the present system, all stocks of stamps could be held in one place, while payments as a rule were made within three days, seemed to be a strong argument against changing the system.

He wished to refer to the loss the company had sustained in the retirement of Mr. H. Farrow, one of its special friends. From the commencement of the scheme he had given his time enthusiastically towards its success, and his colleagues on the Board of Management and Finance Committee would always retain of him a pleasant and inspiring memory.

He would like also to refer with gratitude to Mr. Forsdike, who had kindly taken his place in the chair on several occasions during his absence abroad; to all his colleagues on the Finance Committee and Board for their co-operation and the happy atmosphere in which their work was carried out; and to Mr. Chapman, who had served the company so devotedly.

The report and accounts were adopted.

Sir Henry Holloway proposed, seconded by Mr. Porteous, a warm vote of thanks to Sir Frederick for the services he had rendered and the able way in which the business had been conducted. This was carried unanimously.

SPECIALISTS AND SUB-CONTRACTORS

LONDON LUNCHEON

THE RT. HON. GEORGE TOMLINSON, Minister of Works, was the guest of honour at a luncheon held by the Federation of Associations of Specialists and Sub-contractors, at the Dorchester Hotel, London, on Tuesday, November 26. MR. J. L. MUSGRAVE, M.I.C.E., M.I.H.V.E., President of the Federation, was in the chair.

Proposing the toast of "H.M. Government," THE PRESIDENT said: "That the contribution which our industries have been able to make to the progress of reconstruction has been limited by overriding shortages of the materials upon which we depend has been a matter for regret to all of us. We are conscious that the Government are fully aware—and had they not been, some of us have been alert to bring the facts to their notice—of the crippling effect of these shortages, and are taking the steps that they feel appropriate to alleviate the position.

"It is with some concern, however, that we note that the general public do not appear to have been informed sufficiently of the fundamental reasons for the difficulties which the Government and the building industry, including the specialists in their different spheres, are seeking to overcome, and for which the Industry generally is blamed; it is because we cannot obtain what we need for full production that we cannot provide the public with what it wants."

MR. TOMLINSON, in response, expressed his thanks to the Federation for the assistance he had received at its hands in the last 12 months, and went on to say that the past year had been one of intense effort. Whilst the past year had had its difficulties, the speaker thought that on the whole the year had been one of achievement, and at least the foundations had been laid for the development of the reconstruction programme.

The Minister went on to describe the advances that had been made in the production of materials, and considered that progress in the brickmaking industry, in particular, was one of which employers and operatives alike might well be proud.

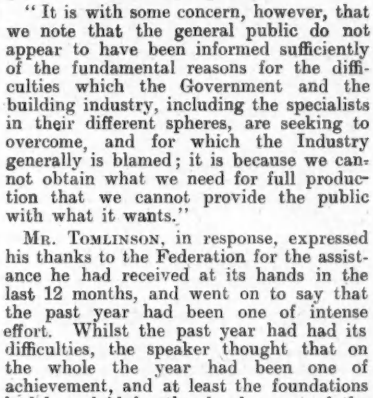
Proposing the toast of "The Guests," MR. W. R. COWEN, M.R.San.I., M.I.H.V.E., said that no matter how little or how much one's views and interests might or might not coincide on matters of day-to-day concern, we were of one mind in our anxiety to surmount all obstacles and overcome all difficulties that stand in the way of progress in the building and allied Industries. It was perhaps unreasonable to expect complete unanimity of views in all the perplexing problems that confront us in our various industries, but the speaker was particularly glad to have this opportunity of expressing his Federation's appreciation of the never-failing courtesy and understanding with which their views and comments were received, not only by Government Departments but by the Professional and Industrial organisations with whom they were privileged to confer.

MR. MICHAEL WATERHOUSE, M.C., F.R.I.B.A., Vice-President of the Royal Institute of British Architects, replying, said: "One of the saddest features of the present-day world is the false position in which we all are placed. It applies to the whole building industry, professional, employers, operatives and manufacturers alike; we are forced by circumstances to be untrue to our knowledge, our art, our skill, our sense of craftsmanship. It applies equally to the Ministries and the highest in the land who are compelled to be untrue to their hopes and their intentions.

"None of us, if we had our way, would do many of the things which we are compelled to do to-day. We cannot but be ashamed of the reduced standard of housing forced upon the community; of inferior and substitute materials and methods which render the few things we are allowed to build even more substandard than they might be.

"Herein lies a duty and an opportunity for all bodies such as this Federation, and all trade and professional organisations—we must emphasise to the world that we cannot be held responsible for the apparent desertion of our ideals and this debasement of our craft. By these means only can we hope for absolution in the eyes of the public to-day, and avoid condemnation by posterity as being responsible for the lowest epoch in the history of building."

KING SLIDING DOOR GEAR



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A New Type of Domestic Tap.

A recent demonstration given in London was that of the "Shaff" range of domestic taps, manufactured by Messrs. James Shaffer, Ltd., 82-106, Cricklewood-lane, London, N.W.2. The principal feature of this range of taps is that they are so designed as to allow the changing of the washer in 30 seconds without turning off the water at the main or stop tap. An auxiliary valve in the tap mechanism is forced up by water pressure when the head of the tap is unscrewed and thus stops the flow while a new washer is fitted. This latter operation is also simplified, as instead of a nut to hold the washer in position necessitating a spanner to effect its removal a split-pin valve spindle guide is fitted which requires merely pulling out before the old washer may be removed and a new one fitted.

The taps are being made to British Standard Specification and have been examined and approved by the Metropolitan Water Board.

THE SCOTTISH BUILDER

NEW BUILDINGS

Angus.—Courtaulds, Ltd., acquired site at Easthaven for factory.

Bellshill.—Housing scheme proposed at Pollock-dr. by the Lawrence Building Co., Ltd., Wellington-st., Glasgow.

Dumbartonshire.—Extensions, etc., proposed at Yarrow and Co., Ltd.'s training centre, for which the architects are Charles McNair and Elder, 272, St. Vincent-st., Glasgow.

Glasgow.—Dean of Guild Court approved plans for factory at Alexandra-parade for Imperial Tobacco Co., Ltd., acting on behalf of W. D. and H. O. Wills, Ltd.; Glasgow Corporation to erect three temporary school buildings at Eastbank Secondary school, Eastbank Elementary school, and Whitehill Secondary school.

Glasgow.—Corporation to erect school at Rigby-st., for which the architect is Mr. John MacNab, 129, Bath-st., Glasgow.

Greenock.—Corporation to erect central garage and destructor at East End, for which the architect is Alexander Hogg, Burgh Engineer.

Paisley.—Dean of Guild Court approved: Factory to be erected by Scottish Industrial Estates, Ltd., at £72,000, for James Anderson and Co., Ltd., colour manufacturers, Glasgow; 662 four-apartment houses and 60 five-apartment houses at Hunterhill and Blackhall and 22 houses at Barochan-cres., Ferguslie Park.

Perth.—School Management Committee propose temporary prefabricated senior school between Muirton Park and Tollhouse at £60,000.

FUTURE CONSTRUCTION

CONTRACTS OPEN

For some contracts still open but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

DECEMBER 6.

†***Evesham T.C.**—22 houses, together with services, at Deacle-pl. extension site. Pemberton & Bateman (F. and A.), High-st., Evesham. Dep. £2 2s. Tenders by December 31.

DECEMBER 9.

Denton U.D.C.—16 houses at St. Lawrence-rd. site. E. and S. Dep. £3 3s.

Ellesmere Port U.D.C.—102 houses at Stanney estate. E. and S., Queen-st., Ellesmere Port. Dep. £3 3s.

†***Folkestone T.C.**—Block of 4 houses at corner of Horn-st. and Cheriton High-st. E. L. Allman, B.E. Dep. £3 3s. Tenders by December 23.

Grimsby T.C.—Erection of M.O.W. hut at Wintringham Secondary school, with drainage, paving, etc. B.E. and S. Dep. £2.

Huntingdon E.C.—Canteen kitchen and dining-room for St. Ives County Primary schools. T. H. Longstaff, County S. and Architect, Walden House, Huntingdon.

Montgomeryshire C.C.—Classrooms, practical rooms and cloakrooms at Machynlleth County school. T. G. Davies, D. of E., County Ed. Offices, Newtown. Dep. £2 2s.

Nottingham E.C.—Extension at Sneinton Dale Girls' school, Edale-rd., Sneinton Dale. City E. and S. Dep. £2.

Nottingham E.C.—Hutted community centre at Oxclose-la., Daybrook. City E. and S. Dep. £2.

Ongar R.D.C.—14 houses with outbuildings, drainage, fencing and paths at Blackmore. E. and S. Dep. £2 2s.

DECEMBER 10.

Bradfield R.D.C.—(1) Access road, footpaths and drains; (2) completion of 5 pairs of houses at Beenham. C. Dep. £2 2s.

Featherstone U.D.C.—180 houses in 7 contracts at Streethouse estate. Pennington, Hustler and Taylor, 45, Ropergate, Pontefract. Dep. £2 2s.

Settle R.D.C.—6 pairs of houses at Goodenberd. (north), High Bentham. E. and S. Dep £2 2s.

Swinton U.D.C.—110 houses at Highfield Farm estate. H. Goodwin, E. and S. Dep. £2 2s.

DECEMBER 11.

Garstang R.D.C.—18 Airey houses with road and sewer works at various sites. E. and S. Dep. £2 2s.

Huntingdon C.C.—Alterations at "The Holme," Godmanchester. T. H. Longstaff, M.Inst.C.E. (F.), County A.

Nottingham T.C.—Extension to dispensary at City Hospital. City E. and S. Dep. £2.

Wadebridge R.D.C.—(1) Conversion of ex-Admiralty building into two flats at St. Illex, Port Gaverne; (2) 28 houses at 3 sites with site works. S. Dep. £2 2s.

***Worcester T.C.**—Conversion of part of Male House block at Municipal Homes into maternity unit. City E. Dep. £2 2s.

DECEMBER 12.

Cheshire C.C.—Prefabricated hutting to form kitchen and dining-room at Runcorn Balfour-rd. Secondary school. E. M. Parkes, County A. Dep. £2 2s.

Cheshire Joint Board for Mentally Defectives.—6 pairs of cottages and external services at Cranage Hall Colony. E. M. Parkes, The Castle, Chester. Dep. £2 2s.

Cheshire C.C.—Works at Marple Secondary school: (1) Kitchen and dining-room; (2) demolition of shelters. E. M. Parkes, County A. Dep. £2 2s.

Cheshire C.C.—Kitchen and dining-room at Higher Bebington Town Lane school. E. M. Parkes, County A. Dep. £2 2s.

Shepton Mallet R.D.C.—12 houses at Stratton-on-the-Fosse with site works. T. P. Jordan, Architect, Council Offices. Dep. £2 2s.

DECEMBER 13.

†***Gloucester R.D.C.**—18 houses at Newnham. C. D. Carus-Wilson, M.C. (F.), Hardwicke, Glos. Dep. £3 3s.

Northwich R.D.C.—140 houses at 10 sites (part second-year programme). J. Birtwhistle, M.Inst.M. & Cy.E., E. and S. Dep. £3 3s.

Worcs. C.C.—Ante-natal ward at Lucy Baldwin Maternity Hospital, Stourport-on-Severn. Martin, Martin and W. H. Ward, Architects, 106, Colmore-row, Birmingham 3. Dep. £2 2s.

DECEMBER 14.

Hale U.D.C.—14 houses with outbuildings, drainage, fencing, etc., at Hale Mount estate. S. Dep. £2 2s.

†***Isle of Ely C.C.**—(1) Works at The Orchards Nursery, Wisbech; building of heating chamber and infants' sanitary annexe, also renovations and redecoration; (2) installation of central heating system; (3 installation of electric lighting. E. D. Robson (A.), County A., County Hall, March. Dep. £2 2s., or £1 1s. for any section.

Longdendale U.D.C.—16 houses at Mottram-in-Longdendale. W. Dobson, Chapman and Partners, Jordangate, Macclesfield. Dep. £1 1s.

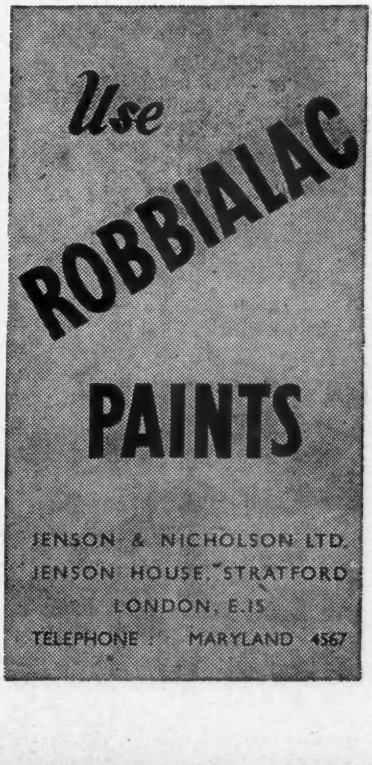
Mansfield Woodhouse U.D.C.—(a) 32 houses/bungalows at George-st. (Forest Town) estate; (b) roads and sewers at same site; (c) 106 houses and bungalows at Cox's-la. estate; (d) roads and sewers at same site. S. Dep. £2 2s.

***Newmarket R.D.C.**—Temporary office accommodation at Council Offices. L. I. Cockerham, Chartered Architect, Council Offices.

Oldham C.B.—Alterations and decorations at "Westlands." A. J. Howcroft and Son, Priory-bldgs., Union-st., Oldham. Dep. £2 2s.

DECEMBER 15.

Barnes T.C.—One block of 12 flats at Mortlake High-st. B.E. and S. Dep. £2.



Bideford T.C.—20 houses at Barton estate, East-the-Water. B.S. Dep. £3 3s.

Glossop T.C.—22 houses at Newshaw-la., Hadfield, site A. G. Faulds, M.I.M. & Cy.E., B.S. and Registered Architect. Dep. £3 3s.

Haverfordwest R.D.C.—128 houses at various sites. A. J. Davies, M.Inst.M. & Cy.E., Council Offices, 10, Picton-pl. Dep. £3 3s.

Henley-on-Thames T.C.—Conversion of Dry Leas Camp for temporary housing. B.S. Dep. £2 2s.

Huntingdon R.D.C.—2 pairs houses at Alconbury and 3 pairs at Old Weston. Parkinson and Dee, Montagu House, Huntingdon. Dep. £2 2s.

***Salford T.C.**—Renewal of gymnasia floors at Broughton Modern Senior school. City E. Dep. £1 1s.

Vayner and Penderyn R.D.C.—(a) Roads, footpaths and sewers; and (b) erection of 20 houses at Pontneathvaughan. E. J. H. Hughes, S. and Architect, Council Offices, 25, Victoria-st., Merthyr Tydfil. Dep. £3 3s.

Warwickshire C.C.—Adapting M.H. hutment at Warwick Hospital to form sleeping accommodation for nurses. County A. Dep. £2 2s.

DECEMBER 17.

***Caterham and Warlingham U.D.C.**—Rebuilding 74, Harrow-rd., Warlingham. E. and S.

Driffield R.D.C.—64 houses at various sites. F. Vaux, Architect, Danesmoor-chbrs., 31, Quay-rd., Bridlington. Dep. £3 3s.

DECEMBER 18.

***Godstone R.D.C.**—36 "Airey" houses with foundations and drains, paths, fences and internal services at 6 sites. E. and S. Dep. £2 2s.

Strood U.D.C.—Two pairs of bungalows at Paganhill. E. and S. Dep. £2 2s.

***Wandsworth B.C.**—Conversion of A.R.P. squad depot into children's day nursery. B.E. Dep. £2 2s.

DECEMBER 20.

***Gt. Yarmouth C.B.**—55 houses at Magdalen College estate (development No. 2), Gorleston. B.E.

DECEMBER 22.

Glendale R.D.C.—Roads and sewers and 10 houses at Phillip's-ct., Lowick. C., 17, Bondgate Without, Alnwick. Dep. £2 2s.

Linsdale U.D.C.—30 houses at Southcott site. H. A. Rolls (L.), F.S.I., 15, Bridge-st., Leighton Buzzard. Dep. £2 2s.

DECEMBER 23.

Chadderton U.D.C.—70 south aspect houses at Melbourne-st. site. F. W. Pexton, (L.), Town Hall. Dep. £3 3s.

DECEMBER 24.

***Fareham U.D.C.**—72 houses at Winnard's Copse site, Barnes-la., Sarisbury. E. and S. Dep. £2 2s.

DECEMBER 27.

***Buckingham R.D.C.**—Site works and erection of 16 Airey houses at Steeple Claydon. F. T. Jennings, S. Dep. £1 1s.

DECEMBER 30.

***Wembley T.C.**—164 houses with drainage and necessary site works at Fryent estate, Churchla. Boro' Treas. Dep. £1 1s.

JANUARY 1.

Brighton C.B.—100 houses at Parkside estate, Coldean. D. J. Howe, M.I.C.E., B.E. and S. Dep. £3 3s.

JANUARY 2.

Dublin.—Site works and erection of buildings for 100-bed hospital at Delville, Glasnevin. J. R. Boyd Barrett, Chartered Architect, 61, South Mall, Cork. Dep. £10 10s.

JANUARY 14.

***Stepney B.C.**—333 flats and 52 houses at Bancroft-rd. housing scheme. Contract No. 648. B. W. Stuttle (F.), M.Inst.M. & C.E., B.E. & S. Dep. £20.

NO DATE.

***The Land Settlement Association, Ltd.**—Works at Foxash estate, Ardleigh, Essex: (1) erection of offices; (2) electrical installations to packing shed and offices; (3) foundation works and reinforced concrete roads to packing shed. R. T. Clarke, Surveyor of Works, The Land Settlement Association, Ltd., 43, Cromwell-rd., S.W.7.

MISCELLANEOUS

DECEMBER 9.

Chichester T.C.—Demolition and clearance of surface shelters, semi-sunk shelters, wardens' posts and static water tanks. City E. Dep. £2 2s.

DECEMBER 14.

Watford T.C.—Demolition and removal of shelters and C.D. structures. B.E. and S. Dep. £1 1s.

DECEMBER 16.

East Grinstead U.D.C.—Demolition and clearance of C.D. structures. C.

Frinton and Walton U.D.C.—Demolition and removal of 25 surface shelters, 3 water tanks and about 72 blast walls. E. and S.

DECEMBER 17.
Stourport-upon-Severn U.D.C. — Demolition and removal of shelters. S.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

DECEMBER 6.
Notts C.C.—C.

DECEMBER 11.
Buxton T.C.—B.E.

DECEMBER 14.
Wilts C.C.—County S.

DECEMBER 16.
***Beckenham T.C.**—Redecoration of teaching bath at Public Baths. B.E. Dep. £2.

DECEMBER 21.
Montgomery C.C.—County S.

DECEMBER 31.
Durham C.C.—County E. and S.

ROADS, SEWERAGE AND WATER WORKS

DECEMBER 4.
***Tendring R.D.C.**—Roads and sewers at Harwich-rd., Mistley. E. and S. Dep. £1 1s.

DECEMBER 9.
Ashbourne U.D.C.—Laying of about 1,400 lin. yds. of 7 in. dia. spun-iron water mains, etc. E. and S. Dep. £1 1s.
Chesterfield R.D.C.—Roads, footpaths and sewers at Ridgeway estate. E. Dep. £2 2s.
Harrow U.D.C.—Service road at Camrose-ave. estate. S. Dep. £2.
Mildenhall R.D.C.—Sewerage and sewage disposal works at Brandon. W. Herbert Bateman and Partners, Chesterfield House, Batheaston, Bath. Dep. £5 5s.

DECEMBER 10.
Hornchurch U.D.C.—Roads and sewers at Fyfield-rd., Coombe-rd., Park-la., Hamilton-dr. S. Dep. £2 2s.

DECEMBER 11.
Buckfastleigh U.D.C.—Roads and sewers at Silver-st. W. G. Couldrey and Son, Architects, 14, Palace-ave., Paignton. Dep. £2 2s.
Ilkley U.D.C.—Roads and sewers at Burley site. A. Skinner, M.Inst.M. & Cy.E. Dep. £2 2s.

DECEMBER 13.
Calne and Chippenham R.D.C.—Providing and laying of cast-iron water mains at 3 sites. Ross, Hooper and Harvey, engineers, Dallas-chbrs., Chippenham. Dep. £1.
Northwich R.D.C.—Streets, sewers, water mains, provision of lamp standards, etc., at 4 sites. E. and S. Dep. £2 2s.
Peterborough T.C.—Sewage purification works. J. B. and D. M. Watson, MM.I.C.E., 18, Queen Anne's-gate, Westminster, S.W.1. Dep. £5 5s.

DECEMBER 14.
Bagshot R.D.C.—Roads and sewers at housing estate. S. Dep. £2 2s.
Horsham U.D.C.—Construction of sewers at Foundry-la. and New-pl., Guildford. E. and S. Dep. £2.

DECEMBER 16.
Brierley Hill U.D.C.—Roads and sewers at Bell-st. site, Pensnett. E. and S. Dep. £2 2s.
Crewe T.C.—Construction of Leighton Valley stormwater sewer. B.E. and S. Dep. £5 5s.
Exeter T.C.—Roads and sewers at Countess Wear estate. City E. and S. Dep. £5 5s.
Golborne U.D.C.—Construction of 567 lin. yds. of 12 in. dia. sewer and 196 lin. yds. of 9 in. dia. sewer with manholes, etc., at Glazebury, also coupling up of various properties. Lomax, Ingham and Roscoe, engineers, 11, Fold-st., Bolton. Dep. £3 3s.
Mossley T.C.—Roads and sewers at Winterford-rd. site. W. H. George and Son, Architects, 7, Warrington-st., Ashton-under-Lyne.
Wirral U.D.C.—Roads and sewers at Oaklea estate, Irby. C. Dep. £5 5s.

DECEMBER 17.
Rowley Regis T.C.—Construction of foul- and storm-water outfall sewers at Brickhouse Farm estate. B.E. and S. Dep. £2 2s.

DECEMBER 18.
Ashington U.D.C.—Roads and sewers at North Seaton-rd. site. E. and S. Dep. £2 2s.
Blackwell R.D.C.—Laying of approx. 96 yds. of 9 in. dia. and 407 yds. of 6 in. dia. concrete pipe sewers, etc., at Shirebrook. E. and S. Dep. £2 2s.
Oxford T.C.—Preparation of site of Rose Hill No. 3 (B) estate. City E. and S. Dep. £5

DECEMBER 19.
Worcester T.C.—Construction of river wall, intake, culvert, etc., at waterworks. City E. Dep. £5 5s.

DECEMBER 21.
***Wokingham T.C.**—(1) Roads, footpaths, soil and surface water drainage. E. G. Hives (L.), 3, Cork-st., Reading, and 106, Regent-st., London, W.1. Dep. £2 2s.

DECEMBER 24.
Fareham U.D.C.—Roads, sewers and small sewage disposal works at Winnard's Copse, Barnes-la., Sarisbury. E. and S. Dep. £2 2s.

DECEMBER 28.
***Newmarket R.D.C.**—Roads and footpaths at 8 sites. L. I. Cockerham (L.), Council Offices. Dep. £3 3s.

DECEMBER 30.
Monmouth R.D.C.—Provision and laying of water mains at the Narth, nr. Trelleck. Thomas and Morgan and Partners, 23, Gelliwastad-rd., Pontypridd. Dep. £3 3s.

JANUARY 13.
Belfast City and District Water Commissioners.—Construction of aqueduct, 53 in. internal dia. and approximately 4½ miles in length. Secretary, Water Office. Dep. £10.

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the advertisement pages of this and previous issues.

GENERAL BUILDING WORK

(LONDON)

Dulwich.—HOUSING.—The M. of H. has sanctioned the compulsory acquisition by Camberwell B.C. from the Dulwich College Trustees of the Denmark-hill Estate. A new "village," providing homes for 700 people, is to be erected on the site.

Edmonton.—HOUSING.—B.C. are submitting plans and estimates of proposed development of Cuckoo Hall-lane estate to M. of H., with request that the scheme be carried out by direct labour. Estimated cost of first 70 houses is £83,000.

Fulham.—BOYS' CLUB.—B.C. have been asked to approve the sale to the Trustees of the Brunswick Boys' Club of the vacant land in Buckler's-alley for £2,135.

Hackney.—HOUSING.—The B.C. is applying to the M. of H. for authorisation to purchase compulsorily certain sites in Middleton-road, Holly-street and Elderfield-road for housing purposes. It is proposed to erect experimental permanent prefabricated houses on the sites.

Islington.—HOUSING.—Mr. Mervyn Campbell-Jones, F.R.I.B.A., Spinners' Hall, 9, Dowgate-hill, Cannon-street, E.C.4, is the architect for 73 flats to be built on the Packington estate.

Lambeth.—BATHS.—The Baths and Cemeteries Committee have recommended the approval of a scheme to erect temporary slipper baths on a site at the rear of Nos. 148, Kennington-road, and 1, Walnut-Tree-walk.

Lambeth.—CREMATORIUM.—B.C. have approved in principle the establishment of a crematorium at the Lambeth Cemetery.

Shepherd's Bush.—TUBE STATION.—A new tube station is to be built by L.P.T.B. at Wood-lane, slightly to the north of the present station. There will be three platforms, and a subway to the White City Stadium, and a new canteen and staff institute are included in the scheme.

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(PROVINCIAL)

Altrincham. — T.C. approved administration buildings and works at Viaduct-rd., Broadheath, for Lancashire Motor Traders, Ltd.
Baoup.—T.C. propose welfare clinic and maternity centre at central site.
Bolton.—T.C. approved works canteen, Dart Mill, Union-st., for Dart Mill Co., Ltd.; additions to works, Liptrot-st., for Robert Kenyon & Sons, Ltd.; factory and garages, church house and grounds, Tonge Moor, for W. Brown, Son & Co.; Bolton Savings Bank propose trustee savings bank at junction of Old Hall-st. North and Victoria-sq.; M.O.W. propose telephone exchange at Victoria-sq.; E.C. propose primary school for juniors and infants at Bury-rd. and Withins-la.; secondary modern school at Smithills Hall site; modernisation of ward kitchens at Townleys Hospital.
Bromsgrove.—U.D.C. approved alterations at Newton Works for John Garrington & Sons, Ltd.; R.D.C. propose to develop land at Stoke Prior for houses.
Chester.—Board of Governors of King's School propose adapting portion of Blue Coat Hospital for dining hall, kitchen, art room and two classrooms.
Chesterfield.—M.O.W. propose postal sorting office off New Beetwell-st.
Coventry.—T.C. propose 416 houses at Charter West and 152 at Fletchamstead.
Croydon.—B.C. submitted layout to M.H. for approval for erection of 32 houses at Kingsdown-av. and Montpelier-rd., and 1,750 houses on the First National Housing Trust Estate. Loan sanction received for purchase of land.
Darlington.—T.C. propose to modernise gas works at £300,000.
Daventry.—R.D.C. propose further 318 houses on 21 sites.
Durham.—C.C. propose 60 secondary schools, 61 primary schools and 226 nursery schools.
Ecclesfield.—West Riding E.C. propose county modern secondary school at £112,564.
Gateshead.—Factory to be erected at Team Valley Estate for Northern Aircraft Components, Ltd.; plans by Hetherington and Wilson, County-chbrs., 52, Westgate-rd., Newcastle-on-Tyne.
Glendale.—Plans submitted to R.D.C. for 90 houses at Millfield area. Architects are Reavell and Cahill, Lloyds Bank-chbrs., Alnwick.
Hebburn-on-Tyne.—Cackett, Burns Dick and McKellar, 21, Ellison-pl., Newcastle-on-Tyne, are architects for canteen for Wailes Dove Bitumastic Co., Ltd., Hedgeley-rd., Hebburn.
Jarrow.—Newrick and Blackbell, 24, John-st., Sunderland, prepared plans for factory at Bede Estate.
Keswick.—Additions proposed at Southey Mill for Cumberland Pencil Co., Ltd.
Leek.—U.D.C. propose 20 houses at Endon, 40 at Brown Edge and 60 at Baddeley Green.
Manchester.—T.C. approved alterations and additions at Simpson's Hotel, Withington-rd. and May-rd., Whalley Range, for D. P. Richardson; alterations to factory, Long-st., Ardwick, for Restaurant Supplies (Manchester), Ltd.; additions, Heaton Park Mills, Heaton Park-rd., Blackley, for Heaton Mills Bleaching Co., Ltd.
Newcastle, Staffs.—E.C. propose school at Bradwell estate and has appointed as architect C. B. Parkes (L.), Bournville Village Trust, Estate Office, King's Norton, Birmingham 30.
Newcastle-on-Tyne.—Co-op. Society acquired sites at Benton area for shops, etc. Plans will be prepared by C.W.S. Architects' Dept. Tyne Taxis, Ltd., Grantham-rd., acquired land at Warwick-st. for garage, etc.
Newcastle-on-Tyne.—The Barry Manufacturing Co., 15, Bath-la., propose extensions at Westgate-rd. Plans by C. Solomon, 3, St. Mary's-pl., Newcastle; Newcastle Breweries, Ltd., to erect temporary premises at Sackville-rd. Architects are Oswald & Son, Bradburn House, Northumberland-st., Newcastle; large extensions proposed at General Hospital. Plans by City A., 18, Cloth Market.
Northampton.—Rev. E. M. Phillips and R.C. authorities propose Catholic church at Abingdon district.
Norton.—R.D.C. propose development of land at Weaverthorpe and Foxholes for housing sites.
Ogwen.—Caernarvonshire C.C. propose adapting Treborth Hall and grounds for special residential school for retarded children.
Oldham.—Methodist Church Synod propose Methodist Church at Filton Hill estate, Limeside; T.C. approved additions at Victoria Saw Mills, Smith-st., for William Lees (Oldham), Ltd.; additions, Chamber Mills, Heron-st., for Joseph Hardman & Sons, Ltd.
Oswestry.—Salop E.C. approved plans for schools at £716,000.
Rochdale.—T.C. approved extensions at Industry-rd. Rochdale Infirmary for Board of Management.
St. Helens.—North-Western Industrial Estates propose factory buildings at Parr at £80,000.
Salford.—British Cotton and Wool Dyers' Association, Cumberland-st., Deansgate, Manchester, propose research laboratories at Lower Broughton-la.; H. Lewis proposes rebuilding "Welcome" Inn, Ordsall-la. and Garnett-st.; H. E. Nunn & Co., Ltd., propose garage and showrooms at Bury New-rd., Broughton.

Sheffield.—E.C. propose community centre at £40,000; school for deaf at £21,000; preparation of site for college of technology and school of art at £12,500; adaptations of existing schools at £154,000.

Shrewsbury.—Shropshire C.C. propose county offices off London-rd.

Skipton.—Skipton and District Hospital Committee propose extensions to hospital buildings.

Stockport.—T.C. approved garage at Clare-rd. and Ansley-dr., Reddish, for S. C. Cooper; factory at Canal-st. for T. H. Beard.

Sunderland.—W. and T. R. Milburn, 17, Fawcett-st., Sunderland, are architects for factory at Catherine-st., for R. Powley and Sons, Sunderland. Newrick & Blackbell, 24, John-st., Sunderland, are architects for factory at Low-row.

Tredegar.—Housing Committee approved plans for factories for Oxton Products, Ltd., and Denham (1933), Ltd.

Upholland.—R.P.B. Brickworks, Ltd., propose works at Ashurst Hill and erection of tow buildings.

Urmston.—U.D.C. propose development of land at Davyhulme-rd., Irlam-rd. site No. 1 and Irlam-rd. site No. 2 for housing estates.

Worksop.—Co-operative Wholesale Society, Ltd., propose hosiery factory at Manton.

TENDERS

* *Denotes accepted.*
† *Denotes provisionally accepted.*
‡ *Denotes recommended for acceptance.*
§ *Denotes accepted subject to modification.*
¶ *Denotes accepted by H.M. Government departments.*

Alloa.—Dwellings at Hawkhill site, for T.C. Mason: *J. Grant & Sons, Ltd., Alloa, £80,140; carpenter and joiner: *Jeffrey & Binnie, Alloa, £49,526; glazier: *Alloa Glazing Co., Alloa, £778; plumber: *W. Chalmers & Son, Alloa, £25,334; slater and roughcast: *J. Davie, Alloa, £19,577; plaster: *J. Davie, Alloa, £22,058; electrical installation: *J. Scott & Co., Dunfermline, £5,872; painter: *George Innes, Kincardine, £5,771.

Aspull.—36 houses with drains, footpaths and fencing at Crawford estate, for U.D.C. Gornall & Wainwright, chartered architects, 8, Hardshaw-st., St. Helens: *J. Winstanley, 120, Cale-la., New Springs, Wigan.

Atherton.—28 houses for U.D.C.: *J. Smith, Johnson-st., Tyldesley (6); *J. Manley & Sons, Factory-st., Atherton (6); *Hulton Estates, Ltd., Manchester (6); *G. Hodgkinson, Wigan-rd., Atherton (6); *Stanley Hayward, Atherton (4).

Barnes.—81 maisonettes and shop at Lonsdale-rd., for T.C.: *A. J. Riggs, Ltd., 12, Seaforth-av., New Malden, Surrey, £102,029 (subject to M.H. approval).

Barnsley.—300 "Newland" houses at New Lodge site, for T.C.: *Tarran Industries, Ltd., Hull. Estimated cost, £1,250 (subject to approval of M.H.).

Bedfingtonshire.—Erection of 86 houses at recreation ground site, for U.D.C.: *Direct Labour (approved by M.H.).

Bellingham.—12 houses with roads and sewers at Wark, for R.D.C.: *T. D. Bird & Co., Hencotes, Hexham.

Birkenhead.—Works for T.C. B. Robinson, B.E. Rebuilding Wards H3 and H5, General Municipal Hospital: *E. R. Williams & Co., Ltd., 2, Greenway-rd., Higher Tranmere, Birkenhead, £7,190. Steel-framed buildings for turbine and boiler-houses at Generating Station: *Dorman, Long & Co., Ltd., Zetland Works, Middlesbrough. Kitchen and dining-room at Overchurch-rd. school: *Wm. Bradshaw (Contractors), Ltd., Poulton-rd., Wallasey, Cheshire.

Brownhills.—79 houses and eight bungalows at Hussy Fields and Brownhills-rd. site, for U.D.C.: *Direct Labour (subject to M.H. approval).

Bury St. Edmunds.—22 Airey rural houses, for T.C.: *Richard Costain, Ltd., Dolphin-sq., S.W.1, £33,840.

Clitheroe.—54 B.I.S.F. houses at Tower Hill site, for T.C.: ‡Gilbert Ash, Ltd., 1, Stanhope-gate, W.1.

Colchester.—Houses for sale to T.C. 24 at All Saints'-av.: *W. A. Hills & Sons, Ltd., 40, Pownall-cres., Colchester, £1,199 each; 36 at Harwich-rd.: *Vaughan (Builders), Ltd., Colchester, £1,200 each.

Cranbrook.—Eight houses at Frittenden, for R.D.C.: *Trenas, Ltd., Chomlea, Beacon Oak-rd., Tenterden, Kent.

Crook and Willington.—112 houses at Nelson-st. estate, Willington, for U.D.C. Architects: Page, Son & Hill, 75, King-st., South Shields: *R. G. Finlay, Ltd., West Sunniside, Sunderland (subject to M.H. approval).

Croydon.—Houses at Ashburton estate, for C.B.: *Messrs. Matthey, Poultry, E.C.2, £16,252 (14); *F. Gloak, 27, Westmore Cottages, Tatsfield, £7,068 (6); *Southern Supplies, 129, Charlmount-rd., Tooting, £6,998 (6). (Subject to M.H. approval.) 20 houses at Heathfield estate: *Stone & Co. (Bristol), Ltd., 325, Whitehorse-rd., Croydon, £23,900 (subject to M.H. approval).

Durham.—Factory at Lanchester, for Sirus Products, Ltd., London and New York: *Hadden & Hillman, 180, New Bridge-st., Newcastle.

Erpingham.—Carrying out sea defence works, for R.D.C.: *May, Gurney & Co., Ltd., Trowse, Norwich, Norfolk, £24,967.

Farnborough.—Erection of 32 houses at Hawley-la. estate, for U.D.C.: *W. J. Rumble, 119, Rectory-rd., Farnborough, £41,811 (subject to M.H. approval).

Fawdon (Northumberland). — Factory for Scott & Turner, Ltd., Gallowgate, Newcastle. Architects: Cackett, Burns Dick & McKellar, 21, Ellison-pl., Newcastle-on-Tyne: *Stanley Miller, Ltd., 17, North-st., Newcastle-on-Tyne.

Gateshead.—Extensions to printing works at Low Fell, for M. Ward, Ltd.: *W. Norman, 3, West-la., Chester-le-Street, Durham.

Gateshead.—Further 106 houses at Coach-rd. estate, for T.C. Plans by Chief Architect: *J. Clarke (New Seaham), Ltd., Gregson-ter., Seaham; factory at Team Valley estate for Heaton Foundry Co., Ltd. Architect: C. S. Errington, 46, Grainger-st., Newcastle-on-Tyne: *W. Wigham & Sons, Hylton, Sunderland.

Gwyrfai.—78 houses for R.D.C. D. H. Roberts (L.), architect, Cwellyn, Caernarvon. 14 at Cesarea: *R. Ivor Roberts, Cesarea, £18,000; 30 at Llanberis: *A. Salisbury, £34,013. Eight at Saron and 24 at Port Dinorwic: *W. J. Griffiths & Son, Carmel, £9,520 and £28,600 (all of Caernarvon).

Hazel Grove and Bramhall.—46 houses for U.D.C. F. Bradley (A.), District Bank-bldgs., 4, Wood-st., Bolton: *Vernon & Smith, Ltd., Station-rd., Hazel Grove, nr. Stockport (12); *G. Corrie & Son, Ltd., Marple-rd., Bramhall, Ches (12); *H. Blurton, Ltd., 47a, Chatsworth-rd., Hazel Grove, nr. Stockport (12); *C. Kermode, Edmonton-rd., Woodsmoor, Stockport (10).

Hebburn-on-Tyne.—10 houses at Lambleycres., for sale to U.D.C.: *J. M. Black (jun.), Ltd., Bk. Glen-st., Hebburn (subject to M.H. approval).

Hexham.—12 houses at Slaley, for R.D.C.: *W. H. & A. Cowen, Hextol-terr., Hexham.

Ilfracombe.—Painting 122 houses for U.D.C.: *J. H. Rees, 5, Park Hill-rd., Ilfracombe, £1,286.

Ilkeston.—133 houses at Cotmanhay estate, for T.C. A. O. Marshall, M.Inst.M. & Cy.E., M.I. Struct.E., F.I.A.A., B.E. & S.: *A. Mason (Contractors), Ltd., Sutton-rd., Mansfield, Notts (subject to M.H. ceiling price).

Lambeth.—Works, for B.C.:—Erection of 107 flats at Denmark-rd., site No. 6:

Galbraith Bros., Ltd.	£167,228
Hall, Beddall & Co., Ltd.	166,601
Wates, Ltd.	164,400
Higgs & Hill, Ltd.	161,911
Rice & Son, Ltd.	161,493
George Wimpey & Co., Ltd.	160,524
Richard Costain, Ltd.	160,368
E. A. Roome & Co., Ltd.	158,580
Charles R. Price	157,894
F. G. Minter, Ltd.	156,750
Davis Contractors, Ltd.	155,718
Holland & Hannen & Cubitts, Ltd. ...	155,378
V. J. Lovell & Son, Ltd.	155,054
Trollope & Colls, Ltd.	154,427
J. Jarvis & Sons, Ltd.	153,810
William F. Blay, Ltd.	153,804
W. J. Mitchell & Son, Ltd.	151,730
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(subject to necessary approvals); provision of 50 perambulator sheds at Hemans-st. estate: *Higgs & Hill, Ltd., £1,598.

L.C.C.—Contracts exceeding £2,500 in value placed by L.C.C. during period ended November 20: Erection of blocks 24 to 30 and blocks 33 to 39 of dwellings at White City estate, Hammersmith, M. J. Gleeson, Ltd., Haredon House, London-rd., North Cheam, Surrey. Reinstatement after war damage of 20 flats at Drysdale estate, Shoreditch, Prestige & Co., Ltd., Cambridge Wharf, Grosvenor-rd., S.W.1.

London (Air Ministry).—New contracts to value of £500 or over for week ended November 23:—*General maintenance work*: Lewis & Watters, Leamington Spa; Rogers Bros, Ltd., Cambridge.

London (M.O.W.).—Contracts placed by M.O.W. for week ending November 20:—*London*: Tooting Graveney, Sellincourt-rd. school, kitchen, W. H. Gaze & Sons, Ltd., 19-23, High-st., Kingston-on-Thames; Mountview Telephone Exchange, additional temporary office, John Willmott & Sons (Hornsey), Ltd., 40, Tottenham-la., N.8. *Aberdeenshire*: Dyce, Bankhead and Petercoulter, site works, foundation, aluminium houses, Hendry & Keith, Ltd., 21, Gilcomston Park, Aberdeen. *Ayrshire*: Beith, site works, foundation, aluminium houses, A. A. Stuart & Sons (Glasgow), Ltd., 2230, London-rd., Glasgow, E.2. *Carmarthen*: Burry Port, central school, temporary building, Glyn Davies, Gweifor, New-st., Kidwelly. *Ches.*: Hartford, demolition of existing buildings and erection of Telephone Exchange, L. Brown & Sons, Ltd., Macclesfield-rd., Wilmslow. *Cumberland*: Milltom, Lapstone-rd. girls' school, dining-room and kitchen, Fisher & Webster, West End-rd., Morecambe. *Devonshire*: Plymouth, C.C. 15A, residual work, aluminium houses, Dudley Coles, Brookland Lodge, Hartley, Plymouth. *Dorsetshire*: Lodbourne Farm, roads and sewers, E. H. Burgess, Ltd., Augustine-rd., Southampton. *Essex*: Billericay, Gt. Burstead school, dining room and kitchen, Cater & Ward, Harold-gdns., Wickford; Westcliff, Fairfax high school, dining room and kitchen, J. C. Flaxman & Sons, Ltd., 114, Southchurch-rd., Southend-on-Sea; Thorpe Bay, school, kitchen and canteen, J. C. Flaxman & Sons, Ltd., 114, Southchurch-rd., Southend-on-Sea.

Fifeshire: Cowdenbeath and Stevensonbeath, site work and foundation, aluminium houses, John Best (Edinburgh), Ltd., The Office, Warriston House, Edinburgh. *Glamorgan*: Newport, C.B.7, site work and Arcon houses, John Morgan (Builders), Ltd., 14, Cathedral-rd., Cardiff. *Hampshire*: Liss school, temporary building, H. J. Titcombe & Sons, Ltd., Milland, Liphook. *Herts*: St. Albans, R.D.C.1, sites for temporary houses, H. E. Webster, Ltd., 1, Bowers Parade, Harpenden. *Kent*: Stroud R.D.C., advance preparation, housing site, Bristowes Tarvia, Ltd., Queensbury House, 18, Queensbury-dr., S. Kensington, S.W.7. *Kent*: Dartford, East Central boys' school, temporary building, Kent & Sussex Contractors, Ltd., 10, Carlton-rd., Erith. *Lanarkshire*: Bellshill, Viewpart R.C. school, dining room and scullery, T. P. Jamieson, 54, Muirhead-rd., Baillieston; Glasgow, Knightswood junior school, temporary classrooms, Cowiesons, Ltd., 3, Charles-st., St. Rollox, Glasgow; Overtown and Waterloo, site work and Arcon houses, H. Simpson & Co., Ltd., 62, Vicarfield-st., Glasgow, S.W.1. *Lancs*: St. Helens, Windlesham R.C. school, temporary building, Nixon & Boardman, Moor-rd. Works, Ornell, Wigan. *Morayshire*: Hopeman, Duffus school, temporary classrooms, Scottish Tarmacadam & Asphalte Co., Ltd., 44-52, Bilbao-st., Glasgow. *Perthshire*: Blairgowrie, site work and Arcon houses, Wm. Sprunt & Co., Ltd., Inverallan-rd., Bridge of Allan. *Sutherland*: Helmsdale, higher grade school, kitchen, Alex. Sutherland, Duke-st., Golspie. *West Lothian*: Linlithgowbridge, site work and Seco houses, John Brock, Cross House, Linlithgow. *Yorks*: Leeds, temporary sorting office, Higgs & Hill, Ltd., 33, St. Paul's-st., Leeds, 1.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended November 16:—

Surrey: Miscellaneous work, J. Crowdson, Horley, Surrey. *Hampshire*: Miscellaneous work, Brazier & Son, Ltd., Southampton. *Surrey*: Miscellaneous work, Sheppard (Builders), Ltd., Guildford, Surrey. *Shropshire*: Road work, Highways Construction, Ltd., London, S.W.1. *Staffs*: Road work, A. Holmes & Son, Burton-on-Trent.

Macclesfield.—116 dwellings at Ivy-rd. estate, for T.C. W. Dobson, Chapman & Partners, Pear Tree House, Jordangate, Macclesfield. Quantities by J. Price Nunn, B.A., 180, Oxford-rd., Manchester: *Macclesfield & District Association of Building Trade Employers (Housing Panel), Union Bank-chbrs., Macclesfield, £90,744 (22 houses and 64 flats); *Forbes Building & Construction Co., Ltd., 34a, Gordon-st., Lancashire Hill, Stockport, £35,258 (30 houses).

Middlesbrough.—Eight houses at Thorntree estate, for T.C. J. A. Kenyon, B.E.: *Direct Labour, £9,400.

Middleton.—60 houses on land owned by private builders, for T.C. J. Pollard (L.), B.E. & A. Six at Kirkway: *D. Barnsley, "Hebron,"

Leicester-rd., Radcliffe, Manchester, £6,987; eight at Kirkway: *Booth, Tonge & Co., Ltd., 68, Mainway, Alkrington, £9,263; eight at Dale-rd./Alder-rd.: *Goodyear & George, Church-av., Slattocks, nr. Rochdale, £9,263; 16 at Uplands estate: *A. Redfern & Sons, Ltd., Fields New-rd., Chadderton, nr. Oldham, £18,526; 22 at Springfield-rd.: *H. Pickup, 50, Boarshaw-rd., £25,473 (rest of Middleton).

Newcastle-Emlyn, Carmarthen.—Four houses at Waungilwen, for R.D.C.: *Daniel Jones, Brynmeiros, Drefach, £1,240 per house (subject to M.H. approval).

Newcastle-on-Tyne.—32 houses at Blakelaw estate, for City Council: *Appleby & Co., Clayton-st., Newcastle.

Newport (I.O.W.).—86 houses at Melbourne Park: *A. E. Jukes & Son, Ltd., 40-60, King George's-av., Southampton, £116,859 (subject to approval of M.H.).

Newport (I.O.W.).—Houses for R.D.C. Three pairs at Fine-la., Shorwell: *B. J. Newnham, Shorwell, Newport, £7,950; 18 houses at Howegate-la., Bemberbridge: *C. F. Wade & Co., Upper Green-rd., St. Helens, I.O.W. (subject to M.H. approval).

Newport Pagnell.—Houses for R.D.C. 32 at Woburn Sands: *C. Hutton & Co., £32,027; eight at Woughton: *Thos. H. Bird & Son, Bradwell, £8,664.

Newport Pagnell.—Eight houses at Moulsoe, for R.D.C.: *H. W. Mason (jnr.), Newport, Pagnell, £8,640 (subject to M.H. approval).

Oldham.—Reinforced concrete purifier house at Higginshaw Gas Works, for T.C. F. Greenhalgh, Gasworks Engineer: *Russell Building & Contracting Co., Ltd., 165, Plymouth-gr., Chorlton-upon-Medlock, Manchester 13, £40,491.

Orrell.—36 houses at Moor-rd.; for U.D.C.: *G. Halliwell, Moor-rd., Orrell, £41,728.

Penryn.—51 houses at Tremough estate, for T.C.: *John Williams & Co. (Cornwall), Ltd., South-st., St. Austell, £63,715.

Pontypridd, Glam.—Factory at Treforest Trading Estate, for Hoovers, Ltd. Wallis Gilbert & Partners, architects: *Higgs & Hill, Ltd., for superstructure; *George Wimpey & Sons, Ltd., site works.

Redcar.—52 houses at Stockdale-av., for T.C. R. Hilton, B.E.: *Sykes Bros., Forth-rd., Redcar (12); *G. Darcy, 40, Warwick-rd., Redcar (22); *E. T. Sweeting & Sons, Ltd., Middlesbrough (18).

Salisbury and Wilton.—Two pairs of houses at Bishopstone and two pairs at Odstock, Nunton, for R.D.C.: *Wort & Way, 37, Castle-st., Salisbury, £7,771; and *Ford Bros., Odstock, £6,527, respectively.

Sheffield.—Eight houses at Parson Cross estate (part of building scheme 3/2), for T.C. W. George Davies (F.), City A.: *Cowley, Merfitt & Sons, Ltd., Sheffield, £6,136 (in lieu of tender withdrawn).

South Kesteven.—Two houses at Aslackby and two at Little Bytham, for R.D.C.: *L. P. Longland, Langtoft, £2,728; and *Harwood Bros., Corby, £2,779, respectively.

Spennymoor.—Adaptation of premises as factory, for Thomas Summerson & Sons, Darlington. Architects: Clayton & Deas, High Row-chbrs., Darlington: *H. E. Pitt, Ltd., Leopold-st., Millfield, Sunderland.

Stockport.—Works for T.C. W. F. Gardner, B.S. 30 houses and 33 flats at Didsbury-rd. site No. 2, Heaton Mersey: *James Crosby & Sons, Ltd., Carrwood, Hale, Altrincham, Ches, £61,572; 20 at Knypersley-av.: *J. J. Oakes & Sons, Ltd., 142, Dialstone-la., Great Moor, Stockport, £22,940; 12 at Sundial-rd., Offerton: *W. G. West, 11, Great Underbank, Stockport.

Stockton-on-Tees.—Factory for George Turner & Co., Ltd., worsted spinners, Brighouse, Yorkshire. Architect: R. Edmondson, Home Garth, Layton-rd., Rawden, nr. Leeds: *Norman Stonehouse, Bridge-rd., Stockton-on-Tees.

Street, Somerset.—Four houses at Overleigh site, for U.D.C.: *C. W. Clare, Ltd., Street, £4,592.

Thorne.—40 houses and 18 bungalows at Brickyard-la. site, for R.D.C.: *W. Firth, Ltd., Armthorpe-rd., Armthorpe, Doncaster, £66,692 (subject to M.H. approval). Erection of "Newland" type houses, for R.D.C. 75 at Broadway site, Hatfield; 75 at Oldfield-la. site; and 50 at Lands End-la.: *Tarran Industries, Ltd., Hull.

Upholland.—20 houses at Hall Green estate, for U.D.C. Gornall & Wainwright, chartered architects, 8, Hardshaw-st., St. Helens: *E. Rylance & Sons, St. James's-rd., Orrell, Wigan.

Urmston.—14 houses at Winchester-rd., Davyhulme, for U.D.C. E. L. Leeming, M.Inst.C.E., E. & S.: *A. Locke (1940), Ltd., Lostock-rd., Davyhulme, Urmston, £15,400.

West Hartlepool.—Further five factories at trading estate, for North-Eastern Trading Estates, Ltd., Low Fell, Gateshead. Architects: Newrick & Blackbell, 24, John-st., Sunderland: *F. Shepherd & Son, Ltd., York.

York.—20 houses for T.C. C. J. Minter, City E. & Architect, Guildhall. Four at Burtonstone-la.: *Wm. Birch & Sons, Ltd., Spen-la.; four at Hull-rd.: *F. Shepherd & Sons, Ltd., Blue Bridge-la.; four at Bad Bargain-la.: *F. B. Frisby, The Corner House, Moorgate; eight at Heslington-la.: *E. P. Dean & Co., Ltd., 6, Barbican-la. (all of York).

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